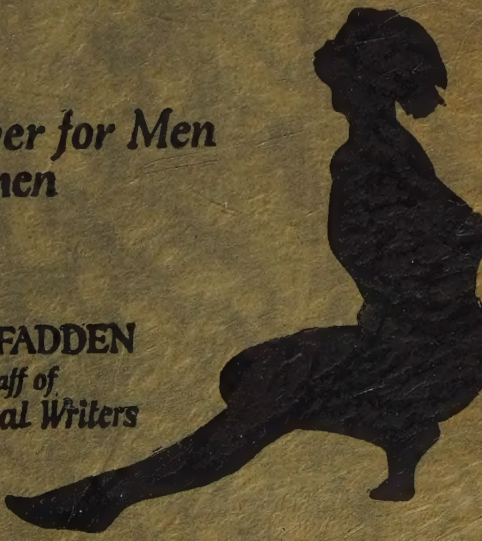
KEEPING FIT — HEALTH

HOW LOST — HOW REGAINED

"Pep," Poise, Power for Men and Women



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KEEPING FIT

BY

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PREFACE

Glorious, radiant health to those who want it!

It is yours—if you are willing to work for it.

There is nothing in life more valuable. It is worth more than money.

The world's richest man is poor if he is minus health.

And if you have health of the supreme sort, it makes you throb with superabundant energy that gives you ambition, endurance, determination. Then you are indeed rich, regardless of the size of your bank account.

We offer you this glorious gift of radiant health, but it can only come with knowledge.

The drug stores do not keep it. No medicine of any kind can give it to you.

You must know the laws of life. You must know WHAT to eat, HOW to eat, WHEN to eat.

You must know how to exercise your body in order to give it the required superabundant energy.

This book shows you the way. It sheds a brilliant light upon the road to buoyant health.

It points out the errors. It shows you the dangers, it plainly and definitely tells you just how you are to obtain these resplendent physical rewards.

You cannot make a mistake if you carefully learn the lessons that are so plainly presented in these pages.

And it does not mean EXPERIMENTING. You can feel yourself growing stronger day by day. You can notice your eyes becoming brighter, your skin clearer, your muscles firmer.

You will gradually find yourself becoming a better and stronger and more capable man if you adhere to the plain instructions that you will find so clearly presented in the pages of this book.

If you have lost your health your one object in life is to find it again, and that means first of all better digestion, stronger heart, more vigorous lungs. It means that you must eat food that is properly assimilated, that you must take care of your bodily organism in such a manner as to increase day by day the vigor and vitality that must be developed.

The rules are simple. A school-boy can understand them.

And if you want to live a life of achievement, if you want to make something of yourself mentally, financially, spiritually, you owe it to yourself to become splendidly strong.

Then difficulties are swept aside. You look ahead with clear eyes. You are filled with a spirit of self-confidence. You are able to meet every situation.

Success is then bound to come to you. Failure is thrust aside.

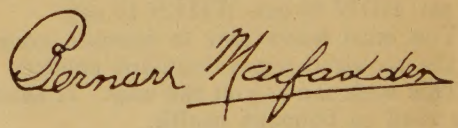
You have the backing that comes with persistence and endurance, and each day you become more resourceful, more capable, more dependable in your sphere of life.

You are then capable of playing a man's part in your business, in civil life, and last—but not—least!—in your home life.

For success is meaningless unless it brings the happiness that comes with the making of a home. Radiant health naturally brings a happy home, but ill health leads direct to the cemetery.

Therefore take your choice. Superabundant health is yours for the asking, provided you learn how, and do the work required.

This book shows the way.



Credit for their efforts in compiling data and presenting professional and scientific material on the various diseases and remedies treated in this book is given to R. L. Alsaker, M. D.; Harry B. Galatian, M. D.; R. Lincoln Graham, M. D.; Edwin F. Bowers; Ralph Lee Brown; Edmund C. Gray, M. D.; Thomas Clark Hinkle, M. D.; Norah Martin; Senator H. J. Riley.

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KEEPING FIT

CHAPTER I

HEALTH—WHAT IS IT?

HEALTH first of all means endurance and the ability to sidetrack disease. It naturally indicates functional and organic vigor. You cannot be healthy unless the organs of the body are possessed of at least a normal degree of strength and are performing their functions harmoniously and satisfactorily. To have health means that you are full of vim and energy, that you possess that enviable characteristic known as vivacity. It means that you are vibrating, pulsating with life in all its most attractive forms. For life, energy, vitality—call it what you wish—in all its normal manifestations, will always be found attractive.

A healthy man is at all times thoroughly alive. The forces of life seem to imbue every part of his organism with energy, activity and all characteristics opposed to things inanimate. A healthy man is naturally enthusiastic. He can hardly avoid being ambitious. And consequently success, with all its splendid rewards, comes to such a man in abundance. Life to such a man should be resplendent with worthy achievements.

No one belittles the importance of success. Everyone is guided to a large extent by the desire to succeed. When a child toddles off to school the training which he secures there is given for the single purpose of bringing success, but this goal cannot possibly be reached without health and throbbing vitality. In fact, you are not yourself in every sense unless you possess vitality of this sort. The emotions and instincts that come to one when thoroughly developed, with the vital forces surging within, are decidedly different from those which influence one when lacking in stamina. Many who have grown beyond adult age are still undeveloped, so far as physical condition and vigor is concerned, and this lack of physical development of vitality means immaturity—incompleteness. It means that one is short on manhood or womanhood. This statement, that one's per-

sonality, under such circumstances, is not completely brought out, may seem strange to some; but careful reasoning will soon verify its accuracy. Success of the right sort, therefore, depends first of all upon intelligent efforts that are guided day after day, with a view, first of all, of developing the physical organism to the highest possible standard, and maintaining it there.

In other words, it is our first duty to be men, strong and splendid, or women, healthy and perfect, if we are desirous of securing life's most gratifying prizes. Many actually go through life only half alive. They are, to a certain extent, doped by their physical deficiencies. They have been handicapped by a lack of the energy that comes with physical development. They need to be stirred by the regular use of the physical powers of the body. When the body is complete in all of its various parts it is truly a marvelous organism. Throbbing vitality stirs the imagination, gives one courage and capacity, thrills one with the possibilities of life, fires the ambitions. The efforts involved in one's daily duties, be they ever so important, then become mere play. To such a man inactivity is impossible. Every day must be filled with active, interesting duties, and progress in such cases is inevitable. Such a man grows, he improves, he ascends. He becomes a positive dominating force in the world.

Can pulsating, vibrating health of this kind be developed? Can one who lacks enthusiasm and organic vigor obtain these valuable forces? If you have failed up to the present to become a complete man, or a splendid woman, can you achieve these extraordinary rewards in the future? You can rest assured that if the necessary efforts are made a revolution can be wrought in your physical and mental powers. You, too, can feel these throbbing vital forces stirring your every nerve, thrilling your very soul. Go to work, in an intelligent manner, realizing that fundamentally the attainment of these great rewards comes from the development of the highest degree of physical excellence. You must have strength of body. You cannot have too much strength. The more nearly you feel like a strong man the more you can achieve in the desired direction. All successful men are, and have been, men of tremendous energy. Their achievements have been simply the expression of the vitality and nerve force which can no more be repressed than the power of an engine when it has been once liberated. Success is due to the dynamic quality of energy. It is true that physical energy and bodily strength are not sufficient for success in all fields. One must have aptitude

for his chosen work. Your energy must be directed in the proper channels, but without this energy and vitality you can accomplish virutally nothing.

The average individual goes through life without living. In other words, he scarcely exists. He has never felt the throbbing exultation of a keen joyous moment. Nor on the other hand has he ever suffered the tortures that are supposed to be associated with the damned, for we must remember that the power to enjoy carries with it a corresponding power to suffer. But we should also remember that the possession of these extremes, the ability to enjoy or to suffer, indicates the attainment of what might be termed the most complete human development.

But why not be alive, vital, vivacious? Why not be alert, keen, energetic, enthusiastic, ambitious, bubbling over with fiery ardor? The possession of these pulsating, vibratory forces proves that one's physical development has closely approached to perfection. To such vital individuals life opens up opportunities that are almost countless.

But those who have never lived in this "world" of fiery ambitions and throbbing powers, who have never been stirred by the keen, satisfying joys that go with these extraordinary, vital qualities, may ask if these invaluable powers can be developed. Are these stirring, vital forces the possession of favored classes only, or may they be obtained by anyone and everyone? In other words, can they be cultivated or developed? My reply, in nearly all cases, would be in the affirmative. There may be exceptions. There is a limit to the development of the physical force, but health is attainable by the majority. So long as there is life you should be possessed of sufficient vitality to attain a normal degree of health. It really takes more power to run a defective machine than it does to operate one in which all parts are working in harmony, and the same can be said of the body and its parts or organs. Therefore, if you have vitality enough to continue to live even though diseased, rest assured that you have enough to acquire health if you conform to Nature's enactments. And this kind of health usually brings a physical and mental exaltation that is truly beyond description.

It is my purpose in these pages to help the reader to solve the problems associated with the attainment of vitality and health at its best. By following out the suggestions which you will find in this volume, by stimulating the life-forces in connection with the thyroid gland, by straightening and strengthening the spine, by toning up the alimentary canal, and by adopting other suggestions set forth in these pages, you should be insured

the attainment of vital vigor really beyond price. Do not be satisfied with an existence. If life is worth anything, it is worth living in every sense of the word. The building up of one's physical assets should be recognized as an imperative duty.

CHAPTER II

WHAT TO EAT

IN considering the subject of diet, we are safe in assuming that man's natural diet was predominantly a vegetarian one, with a smaller proportion of foods of animal origin. The two chief changes in the diet of civilized man are the inclusion of meat from larger animals, and hence in larger quantities, and the use of grains or cereals. Neither of these types of foods which make up the bulk of man's present diet were available to his ape-like ancestors.

It does not follow, however, that the diet consisting chiefly of meat and grain is the most wholesome and beneficial diet that man can use. Indeed, present-day scientific knowledge indicates that such a diet is not the best, and that while it may have advantages of economy, its use has only been possible because it has been supplemented by animal products, such as milk and eggs, and by a considerable variety of vegetable foods other than grains.

Moderate quantities of meat foods may be used in the diet without materially changing its effect. And remember that lamb, veal, and pig of all kinds should especially be avoided. When you actually need meat, beef is probably the best kind to select, though mutton can sometimes be recommended. My favorite meat is the top cut of "round" steak ground up and boiled in a few spoonfuls of water for one or two minutes or until the red color disappears. It is also palatable broiled. Chicken and fish are also desirable meats, but not as nourishing as beef.

Meat, however, is inferior to milk and eggs in most cases—there are exceptions. Both groups of food supply growth proteins of superior quality to those derived from any vegetable foods, but meat is deficient in minerals and in vitamines. A diet consisting of a goodly variety of vegetables, including an abundance of green leafy vegetables, and containing a small proportion of meat, will support life without the use of milk. This indeed is the type of diet upon which Chinese and Japanese have subsisted for centuries. But this Oriental diet is not equal. especially

from the standpoint of the nourishment of children, to the diet available in dairying countries.

Meat adds no essential food values that cannot be derived more cheaply from other sources if the digestive organs are normal. As used in the conventional American diet, meat supplies entirely too much protein, which sometimes results in overburdening the excretory organs with nitrogenous waste products. Moreover, meat contains the waste products of the animal and these substances are very similar to the waste from human cells, though with a healthy digestion this is easily eliminated in the alimentary canal.

Because of the mistakes of flour manufacturers all grains and grain products could be entirely eliminated from the human diet, and thereby decrease the danger of dietetic deficiencies and inadequate nutrition. But it is difficult to do this because grains and their products supply the great bulk of human food. Indeed it would not be possible, without revolutionary changes in our agriculture and food-producing methods, to support the human race without the use of grain.

The bulk of the substance of all grains is starch. Together with this starch is incorporated from eight to fifteen per cent. of vegetable protein. The starchy substance of grain may be ground up to produce flours and meals which keep well and which are the basis of our bread-making and baking arts. In addition to this starchy portion, which fills the endosperm or bulky interior of the grain, all grains have an outer coating of bran, and also a germ. The milling industry adopted the practice of removing both bran and germ.

In all these cases, the removal of the bran and germ results in a serious loss in nutritive values. The interior white portion of the grain is almost entirely devoid of minerals and vitamines. These are more abundant in the bran and germ; moreover, the bran, especially in the case of wheat, is exceedingly valuable to give bulk to the diet and prevent constipation or intestinal congestion.

If white flour and similar denatured cereal products were used only in small quantities and combined with ample quantities of milk and green vegetables, it is probable that no serious harm would come from their use. But, as these cereal products, in the form of bread and other bakery goods usually compose a large portion of the diet, a denaturing of the grain in the milling process is a very serious evil. Even though the use of denatured product might be tolerated with the precautions

above mentioned, the discarding of the bran and germ is a serious economic waste, for it must be replaced with similar nutrients from other and more expensive sources.

By all means, I heartily advise the use of whole wheat and whole wheat products, of cornmeal made from the whole grain, and of unpolished rice. These natural cereal products contain the coarser fibre substance of the bran, and the minerals and vitamines of the germ, and are unquestionably more nearly complete foods than the refined products. Used with whole milk or milk and butter, the entire grain cereals, particularly wheat, make a practically complete diet. Such a combination is one of the cheapest and most palatable diets possible and may be safely used as the basis or bulk of any low-cost diet.

The natural roots and tubers, of which the potato is the most used, contain considerably more minerals than the refined cereals. The proportion of the various minerals are different in different root vegetables. Turnips, for illustration, are very rich in calcium. Taken as a group, the root vegetables are equal or superior to whole wheat as a source of minerals. Like the grains, the root vegetables are devoid of the fat-soluble vitamines which is found in butter or milk fat, in the egg yolks and in green leaves. The addition of potatoes or other root vegetables to a diet of grains and meat does not, therefore, make the diet complete.

The root vegetables should by all means be used in the diet in moderate proportions. They supply cheap and nourishing fuel food in the form of starch and sugar combined with fibrous or cellulose matter, and a variety of mineral salts.

The leafy vegetables have many attributes to recommend them. On the whole, present scientific knowledge rates them as the most essential foods known, with the exception of milk and eggs. This does not mean that leafy vegetables would do as the whole diet of man. Indeed, they are so bulky that a man would have difficulty in eating enough of them to sustain life. But their use to supplement other foods and prevent the deficiencies of our conventional foods cannot be too highly recommended.

The essential qualities of leafy foods are: first, the vitamines, all of which seem to be present in leaves; second, the minerals, in which leaves are very rich; and third, the presence of cellulose, which gives bulk to the food in the same way that wheat bran does. Leaves are also richer in protein than grains or roots, and this protein is probably more available than the

stored protein of dry vegetable food. All these leafy foods outrank in their proportion of mineral ingredients any of the foods derived from grains, fruits, nuts or meat. They are equalled only by milk, cheese and eggs.

The high value of leaves as food is attributed to the fact that they contain the active, growing cells of the plant. This same thing is true of buds and very tender shoots, or of seed-pods in the immature stages of development. Thus asparagus tips and string beans may, for practical purposes, be considered in the leafy vegetable group of foods. Some of these same attributes are found in immature green corn or green pea.

There are a few vegetables in which the portion used as food consists of a tender stalk. For illustration; celery and rhubarb, pie-plant. These tender stalks rank between the root vegetables and the leaves in food quality.

Melons have no particular food value; they consist chiefly of sugar and water. The cucumber is about as devoid of food value as any substance eaten by man. The pulp of pumpkins and squashes ranks somewhat lower than the poorest root vegetables. The value of the pumpkin pie is in the milk and egg.

The tomato, on the other hand, is a distinctive and valuable food, being rich in minerals and in organic acids.

Fresh fruits, considered for food substance contained, are the most expensive of all foods. This expense is due to the fact that fresh fruits contain very large quantities of water. Dried fruits are of much greater value per pound. Such foods as dates, figs, raisins and prunes, even considered from the standpoint of their caloric or fuel value, are worth nearly as much as dried cereals. In all other attributes they excel cereals. In the first place, their fuel substance is in the form of sugar, and this natural sugar, unlike that from the cane or beet, is already in the form in which it may be absorbed directly into the blood; hence, is less likely to ferment in the digestive organs. Secondly, fresh fruits contain minerals which are absent from refined sugar. Fruits also contain a proper amount of fibre or cellulose which aids digestion. Lastly, fruits contain organic acids which, strange to say, actually prevent an acid condition of the blood. This seeming contradiction is due to the fact that the organic fruit acids are really acid salts formed of a combination of organic acids with basic or alkaline minerals. In the process of digestion and assimilation, the organic acids are oxidized, freeing the alkaline salts for new combinations which

serve to neutralize the harmful acids developed by the physiological processes.

No scientific consideration of the subject can fully portray the dietetic value of fruits; for above all other foods, their value lies in the flavor or appetizing quality, and the consequent pleasure to be derived from their use. Fruits are the natural dessert and should be used as such. With the possible exception of dates, figs and raisins, fruits are not to be considered as suitable for forming any great bulk of the diet, or replacing other food groups. But these sweet fruits may be very profitably used in the place of artificial sugars, and also to cut down the quantity of cereal starch.

Nuts have played a prominent part in all vegetarian menus. The high rating so given them was originally due to the fact that they are the richest in protein of any vegetable foods, with the possible exception of beans and peas. From our present knowledge we do not rate this protein so highly, both because we now realize that the body does not need so much protein, and because we now know that vegetable proteins are not as assimilable by man as protein of animal origin. Thus it would seem that our recent knowledge indicates that we formerly placed too high a value upon nuts. This much may still be said in their favor: the nut protein is free from any of the toxic waste products that may be present in flesh foods. Also the fat of nuts is exceedingly nutritious and wholesome and has a decided advantage from the standpoint of digestibility over the animal fats which are used in frying or in the making of pastry.

Nuts should be used in the diet as a food, not as a relish; that is, they should be a part of the meal and not taken in addition to the meal. Nut meats should be thoroughly masticated, as they are not digestible when swallowed in large particles.

While nuts are not essential to the diet, they are a pleasing and tasty food and may be very profitably used in moderate quantities, especially in those diets from which meats and animal fats are eliminated.

Extracted fats or oils, whether of animal or vegetable origin, have no food value whatever except as a source of fuel. In this respect, pure oil is worth about two and one-quarter times as much as sugar, or two and one-half times as much as dry cereals. No diet is palatable and presumably is not wholesome without some proportion of fat. The best source of fat in

food is in the form of the emulsified fat of milk, cream or egg yolk—or in a somewhat more concentrated condition in butter and cheese. In all these cases the fat contains the highly important fat-soluble vitamine which does not exist in such fats as lard, cotton-seed oil or oleomargarine.

In a meatless diet, the use of milk, butter, eggs and nuts would supply all the fat actually needed, but that an additional amount may be used in the form of oil, either alone or combined with other ingredients, as salad dressings.

Where fat is used in all the above-mentioned forms, the additional use of fat in the frying of foods or in the concocting of rich pastries is a wasteful and harmful habit. In the first place, such additional fat is not needed and is therefore inclined to over-enrich the diet and lead to over-eating. Secondly, the combination of fat with starch and sugar, either in frying or when mixed with the ingredients, results in a product which is notoriously difficult of digestion. Thirdly, such fats are absolutely devoid of minerals, proteins and vitamines, and hence their use increases the danger of deficiency of some of these most essential elements.

All that has been said about the surplus use of fat in cooking applies to the use of fat meat. It has nothing to recommend it at all, except that of being a source of fuel energy in a most concentrated form. Its use may be excusable in the diet of the Eskimo, or other men doing severe work in rigorous climates, but for the ordinary American, especially if he be an indoor worker, the use of fat meat or excessive fat in any form is a dietetic evil.

Many of the arguments above given against the use of fat apply to the use of ordinary commercial sugar. In the plants from which sugar is derived, it is at least combined with mineral salts, cellulose and the water-soluble vitamines. But in the refining process, all these elements are discarded and we have chemically pure sugar. We have no reason to believe that sugar in itself is any other than a wholesome food, but the trouble is that we add it to a diet of refined cereals, meats, potatoes, and refined fats, all of which are already deficient. This addition of sugar merely results in increasing the proportion of such deficiency.

If any one of the deficient foods enumerated in this chapter were the sole offender in a diet otherwise made up of natural foods, there would be little occasion for concern over its use. But when the millers rob us of the minerals and vitamines of our grains, and then add large quantities of refined fats and

sugars, the danger of food deficiency is very real. It may be possible to protect against such deficiencies by the use of milk and green vegetables, but the wiser plan would be to use also natural whole grain products, and to cut down the quantity of refined fats and sugars to the minimum amount necessary to prepare our food in palatable form. Even this last suggestion is merely a concession to convention, for it is entirely possible to select a diet containing grains, dairy products, nuts, vegetables and sweet fresh fruits from which refined fats and sugars may be eliminated altogether.

The most common fault in the American bill of fare is the over-use of meats, denatured grain foods (including breads, pastries and "cereal" dishes), potatoes, and refined sugars and fats.

The simplest remedy for this fault is decrease of the foods mentioned, and the increased proportions of milk, butter, cheese and eggs and of leafy vegetables. The increased use of natural whole cereals, fruits, nuts and a general assortment of vegetables, while not so important as the milk and greens, is generally beneficial and advisable.

Any menus prepared with these facts in mind will not be far wrong.

Individuals differ greatly in their digestive capacity, and in their susceptibility to digestive troubles because of various foods or food combinations. There are some dishes that are notoriously indigestible, such as mince pie, plum pudding or pig's knuckles and other heavy, "rich" dishes. These will naturally be avoided by any careful person. But with simpler and more wholesome dishes, such as are advised in this book, the question of immediate food combinations need not trouble you, unless from personal experience you find that they give you distress.

When using milk also carefully note that sweet milk does not combine very well with meats, cooked eggs or some cooked vegetables. It is better to make milk a large part of a meal when used, and combine sweet or acid fruits with it. Dates or raisins are ideal with it, though prunes, figs or other sweet fruits can be recommended.

Soured milk products will combine satisfactorily with nearly all foods.

The following simple rules will summarize the principles we have been considering and will serve as a guide for the selecting and proportioning of foods in the planning of menus.

The use of too much milk with other foods will at times make one more liable to colds and the various diseases that begin with symptoms of this nature, though milk will always insure a satisfactory quantity of nourishment. Some use a quart of fresh milk a day for each member of the family. This is usually too liberal a portion though it will cover a multitude of other possible defects in the diet, provided there is no tendency to colds. It is given as a safe minimum, especially for growing children, in case other foods of the milk group are not used. If dairy butter, eggs, and cheese are used liberally in the diet, the quantity of milk per person may be reduced to a pint or less a day. But growing children should have their full allowance of a quart of fresh whole milk and consume correspondingly less of other foods if you are not sure they are being thoroughly nourished with other foods. With my own children, when I give them a liberal quantity of milk they are given fruit only (acid or sweet) with it. Raisins and milk or dates and milk is a favorite meal. When giving them a hearty meal composed of a full variety of foods I rarely give them milk. It is not desirable, and they do not need it at such times. For milk used in cookery, canned or evaporated milk may be substituted for the fresh, the equivalent ratio being a pound can of the evaporated milk for a quart of the fresh.

Use at least one dish of leafy vegetables per day—or better still, one cooked dish of such vegetables and one of uncooked salad. Do not merely use a few leaves of lettuce or sprigs of parsley and call it a leafy salad; use ample quantities of lettuce or other salad greens, combining with other ingredients desired to give variety and flavor.

The problem of getting leafy vegetables in all markets at all seasons of the year is sometimes a vexatious one. On northern farms or in small towns there are often few leafy foods available from November to May. Cabbage and celery, however, are leafy foods which keep well in the winter. Kale, which should be more grown, has wonderful frost-resisting powers, and will stay green through the winter in all but the most severe climates. In large city markets, even in the North, kale, spinach and lettuce are on sale throughout the winter. If, for a time, no fresh leafy vegetables are available, use canned spinach, canned string beans, and an abundance of general fruits and vegetables.

Use whole grain products in both breads and cereal dishes.

This rule can be departed from, in part, where the diet is adequately protected otherwise, as here advised. White flour has some uses in cookery, for which whole wheat flour cannot be easily substituted. There is no excuse, however, for the use of the devitalized white flour bread in any diet unless you are suffering from chronic diarrhea; then it may be advised for a short time. Moreover, once you have found where you can buy, or learn to make a good quality of whole wheat bread, you will find that you prefer it to the white variety. The same is true of whole cornmeal and of unpolished rice.

Use sugar sparingly. Instead, use more sweet fruits, honey, and, if possible, maple syrup. Honey is the easiest of all sweets to digest, provided its nourishing elements are needed by the body.

If you use meat at all, learn to use it as a flavor food and not as a filling food. A quarter of a pound per person per day is usually an ample quantity.

Use nuts, if you wish, in the place of meat. Not that they are specifically needed as a meat substitute, but rather that nuts used in cookery will produce many delightful dishes and, therefore, reduce the temptation to use meat because of habit or appetite. But to use large quantities of both nuts and meat is foolish. It unduly enriches the diet in protein and fat.

Use vegetable oils in salad dressings and in cooking operations that require fat. Do not use vegetable oils or nut margarines as a substitute for dairy butter, except in menus containing very considerable quantities of milk, or of milk and eggs, or milk and cheese.

Use as much fresh fruit as you can reasonably afford.

Use beans, peas and macaroni—so-called meat substitutes—as you would use rice or hominy. These foods are tasty, but have no superior value over similar filling dishes derived from grains.

A very practical way to check up on the proper proportioning or balancing of the diet is by "balancing the grocery bill." This is only an approximate method, to be sure, and no absolute rules can be laid down because of the wide variations of food prices with locations, and from year to year or season to season. Notwithstanding these wide variations in price the summary of the grocery bill with the items classified by groups will generally show whether the diet is approximately correct or seriously unbalanced.

In actual practice no dietary standard of so many calories per day is of practical use to the individual. In the first place the figuring up of the calories of one's diet is an unreasonable task to impose upon anyone but a scientist. In the second place, such general standards are worthless when applied to an individual case, because individual needs very so widely. The chief cause of this variation is the actual size of the active body or the weight of muscular tissue, and this fact is difficult to determine. The bigger a man is, that is, the more muscle he has, the more food he will need, but the heavier, that is, the more fat he has, the less food he should eat. Lastly, there is no way to tell just what is meant by light, heavy, or moderate work. A man may feel that he is working very hard, merely because of monotonous labor, unpleasant surroundings, or mental strain. Another man working pleasantly with a variety of muscular movements may seem to be working less hard, though he would require more food fuel for his activities.

There is only one practical method by which to gauge the amount of food one should eat; and that is by observing the weight of the body and one's general feeling as to strength and health. The ideal food quantity is that amount which will just maintain a feeling of super bodily strength and endurance and ideal weight. Here again, of course, we are dealing with a standard upon which peoples' opinion may differ. Almost anyone has a fairly definite conception of the ideal form of the human body. With proper muscular development this ideal form will, for each individual, be a sufficient guide to the ideal weight. The practical trouble is that very few individuals, under the conditions of modern civilization, have sufficient muscular development.

If a lazy, unexercised man, five feet eight inches in height takes as his model a perfectly developed athlete of the same height who weighs one hundred and sixty pounds, and the lazy man attempts to attain the athletic weight by eating rather than by exercise, the result will be a fat and over-fed man. On the other hand, should an exceptionally well muscled man reduce his food until it resulted in his coming down in weight to reach the average figure, it would merely mean that he would lose the exceptionally fine physique that he had built up. In practice there is much less danger of the latter error than of the former one.

The ideal plan is, therefore, to eat just enough to maintain a feeling of strength and all around vigor and with the body

in a well-muscled condition and without any visible evidence of surplus fat. Even a very slight increase of the body weight above this muscular minimum indicates over-eating. The condition of the body is usually most easily determined by the presence or absence of fat on the abdomen. The man in first-class physical condition has no more fat upon his "stomach" than he has on his arm, and the form of the abdominal muscles may be felt beneath the skin as readily as the biceps. Few men maintain such fitness, but that is no proof that is cannot and should not be maintained. Most men do over-eat and under-exercise; and most men are too fat, and die from ten to twenty years before their time because of it.

The above discussion has been written primarily from a masculine standpoint. The feminine form naturally carries less muscle and more fatty tissue than the masculine. There are fundamental physiological reasons why this should be so. Nature adapted the feminine body to a more ready storage of surplus nutrition as a preparation for child-bearing. Our ideas of feminine beauty also require the presence of more fat in the feminine than in the masculine form. This ideal of fatness in feminine form was formerly carried to an extreme, which the present generation is trying to get away from. The modern woman wishes to be "slender," yet even her ideal of slenderness usually means a comparatively fat condition, because of the lack of muscular development. The true ideal of feminine form is only maintained by the athletic type of woman, and a form maintained by over-eating instead of by proper exercise is not a true or lasting form of beauty.

For the individual who is of approximate normal weight I suggest an experimental cutting down of the amount of food eaten until it results in a loss of from five to ten pounds of weight. Such an experiment will do you no harm and you may find that it will produce a marked benefit in health and efficiency as well as in food economy. In such cutting down of food quantities, as in reducing from obesity, it should be the starches and fats that are eliminated. Indeed, if you have been living upon the conventional diet, almost invariably too rich in the fat-forming foods, you are likely to find that the adoption of the type of diet advocated will result in some loss of weight without any conscious effort on your part to reduce the food quantity. If so, be reassured that this loss of weight will prove beneficial.

SUGGESTED MENUS

I am giving here three sets of menus, one for a mixed diet, one for a lacto-vegetarian diet, and one for a diet of raw foods. To give variety from day to day, substitute for any particular food mentioned some other food belonging to the same class. For instance, Wheatena or oatmeal could be substituted for whole grain wheat, figs or raisins for dates, oranges or grapes for peaches, celery or endive for lettuce or cabbage, and turnips or beets for carrots or potatoes. The heavier meal is here given in the evening, but the order may be changed to suit the preference or convenience of the individual. An orange or grapefruit should be taken, preferably ten or fifteen minutes before breakfast, followed by a glass of hot or cold water as desired.

Mixed Diet

Breakfast:

Whole grain wheat with honey and cream.
Dates, raisins or prunes.
Milk.

Lunch:

Vegetable soup.
Cold slaw (without vinegar) with French dressing.
Whole wheat bread and butter.

Dinner:

Tomato soup.
Broiled Hamburger steak, fish or eggs.
Carrots and peas.
Lettuce salad.
Whole wheat bread and butter.
Fig pudding. Postum.

Lacto-Vegetarian Diet

Breakfast:

Shredded wheat with bananas and cream.
Raisins.
Milk.

Lunch:

Combination Salad.
Whole wheat bread and butter.
Cocoa or Postum.
Rice pudding.

Dinner:

Cream of celery soup.
Boiled eggs or cottage cheese.
Baked potato.
Baked spinach or tomato salad.
Whole wheat bread and butter.
Prune pudding. Postum.

Raw Food Diet

Breakfast:

Raw Pettijohn's Breakfast Food (flaked wheat).
Raisins.
Milk.

Lunch:

Peaches.
Dates.
Milk.

Dinner:

Lettuce and carrot salad.
Almonds.
Figs and apples.
Hot water with cream and honey.

I am not a strict vegetarian as many people imagine. I eat meat fairly frequently. My favorite meat is broiled "Hamburger" steak, ground from the top of round steak. I rarely eat pork in any form. I never eat veal, lamb or any immature meats.

I never eat without an appetite. If I'm not hungry I fast (sometimes for several days), until I can enjoy my food. This is a rule that must be adhered to if health supreme is desired.

CHAPTER III

BODILY VIGOR DEPENDS ON EXERCISE

ONE of the most important laws of the Universe is in regard to the use of muscles. "Activity is the law of health" and without it decay begins. No part of the body can be normal unless exercise is taken in some manner, in order to affect various physiological processes. If the muscles are not used there will be little call for nourishment; assimilation will be reduced as there will be no need for the absorption of food; circulation will become retarded; the elimination suffers, and, in fact, every function of the body is extremely lowered. Exercise cannot be depended upon alone for bodily development, as in addition there must be the proper combination of diet, rest and relaxation, water internally and externally, fresh air, and a hopeful mental attitude.

It is necessary to consider the physiology of practically the entire body in considering the physiology of exercise. The muscular body is a large part of the human machine and muscular action naturally produces a decided effect upon all other parts of the system. The brain directs the action and nervous energy is consumed during the exercise; also tissue is broken down at this time. This creates the demand for an increase in nourishment and for a hastening of the elimination of waste materials. This requires an increase in circulation which, in turn, necessitates an increased heart action, both in speed and force.

The increase in waste material also makes a demand for more rapid purification; this creates increased activity of the lungs. All of these processes create more heat within the body and the skin as the great ventilator of the body is increased in activity and this results in perspiration. The exercise has used up fuel from the blood stream and the storage supply in the liver, also some of the tissues themselves. This makes a demand for more food. Hunger appears; food is taken and the digestion is accelerated because of the normal hunger appetite.

This increase in body functions has drawn upon the supply of nervous energy to a considerable extent and more or less fatigue is produced which calls for sleep. It is during sleep,

rest and relaxation that the body really grows or is repaired, and energy is replaced. Nature is conservative and where there is a steady demand upon the energies, she adds to the reserve in both energy and structure; and this makes it possible for the body to develop muscularly and in its functions.

The muscles are little groups of fibres bound into larger groups and finally surrounded with a strong sheath which is attached to the bones by tendons. There are both voluntary and involuntary muscles. The voluntary muscles are called the skeletal muscles, the involuntary are called visceral; but they both require activity for their proper functioning and for the health of the body. A movement, regardless of how small it may be, is made by the contraction of one or more muscles. We will to make this move. This is accomplished by sending a message over the nerves to the muscle cells which causes them to shorten and at the same time widen. As the muscle shortens, it draws the two points of attachment toward each other and thus produces a move. As it contracts, it forces out of its vessels and interspaces the blood and lymph. As soon as relaxation is established, the blood and lymph surge back quickly into the muscle and bring added nourishment for fuel and repair, and they carry away the waste products resulting from the contraction. This produces a mechanical effect upon the circulation.

Contraction of smaller groups of muscles have a minor or insignificant effect, but when the larger groups of muscles are used the effect is very pronounced. This explains why many people who do not take regular and sufficient exercise suffer from cold hands and feet and are easily chilled or "suffocated" with a mild degree of heat; their circulation is decidedly unbalanced.

But other structures are mechanically or directly affected by the contraction of muscles. This is especially noticeable in the abdominal region. Alternate contraction and expansion of the muscles of the abdomen produces a message of the abdominal organs which stimulates their action and increases the movement of all contained liquids. As exercise increases the rate and depth of breathing, the diaphragm must make particularly long and vigorous excursions into and out of the abdominal cavity; this is a particularly effective message of the abdominal contents. This diaphragm action also has a marked effect upon increasing the circulation by its rhythmic production of a semi-vacuum in the chest cavity. It will be seen by this that the mechanical effect of exercises upon the activity of the vital organs is very marked.

Another very important effect of exercises is upon the brain itself. Certain areas of the brain control certain groups of muscles and the exercise of these muscles is possible only through the function of this area of the brain. Exercise of the muscles develops not only the muscles themselves, but the area of the brain controlling them. Better coördination is produced. This is of greater value than merely the proper connection of the muscles in unison; for as these areas of the brain develop, our ability to think of motions also develops. Thus a child cannot conceive of running when it has not yet learned to walk, but after learning to walk it begins to think of running, jumping, swimming, etc. As most of our thoughts concern actions, either actual or imagined, it can readily be seen that the quality and extent of our thinking is improved as we develop more power and coördination in the motor centers of the brain through exercise of the muscles. It is a fact that most men celebrated for their thinking ability in later life were accustomed to taking considerable muscular exercise in their youth.

Why do we become fatigued or tired after exercise? First, because the broken down cell material has accumulated in the blood stream, and this acts as a block to the flow of the blood and to the flow of nervous energy. Second, because the motor areas in the brain have become exhausted, that is, they have used up their reserve. Elimination will take care of the former comparatively quickly, but the latter requires relaxation and sleep for a complete correction. It is at once evident that rest and sleep are very necessary in connection with exercise,—in fact, they are indispensable. Exercise is of no value, in fact it is injurious without rest, and rest is useless and valueless without exercise. They depend upon one another for the greatest benefit.

Proper elimination depends upon exercise, but there must also be an abundance of water and fresh air. The replacing of destroyed cells and consumed fuel depends upon good food in abundance but not in excess of requirements; also upon normal digestion and assimilation. And we return to the point from which we started: that exercise has a very far-reaching effect upon the body; that it is indispensable to perfect health; but that, along with it, must be had the proper diet, plenty of fresh air and water, and all the other essentials that go to make up *right living.*

CHAPTER IV

HOW TO BREATHE

VOLUMES have been written upon the value of breathing exercises. Many exaggerated statements have been made as to what can be accomplished through deep breathing. Nevertheless, it must be definitely understood that full, deep breaths, which expand the lungs to their fullest capacity, and are taken at frequent intervals, are of great value.

Almost any vigorous exercise will enforce deep breathing, and there is no question as to the benefit of the involuntary or spontaneous inhalation and exhalation thus induced. Running and wrestling are types of very vigorous athletic exercises that will compel one to breathe deeply and fully, and will insure a full lung development without special breathing exercises. And this is more especially true if much exercise of this character is taken regularly, day after day, all the year round.

But where the occupation and surroundings are such that one cannot indulge in such active pastimes, or where the time for such exercises is necessarily limited, frequent voluntary deep-breathing exercises can be highly commended. About the best example of the proper use of the diaphragm and the natural movement of the abdominal and dorsal region in correct breathing is illustrated in a small child. In nearly all cases an active healthy child will breathe properly, and by studying the movement of his abdomen in both standing and reclining positions you will find that as the breath is inhaled the abdominal region will expand. When the breath is exhaled this part of the body will contract or be drawn inward. This demonstrates very conclusively that the movement or expansion of the body in natural breathing is abdominal, and that the bony framework of the chest should not be involved except when taking full deep breaths, or when breathing hard from the effects of very vigorous exercise.

It is not at all necessary to go through a complicated system in order to learn proper methods of breathing, since this is comparatively simple if you are willing to make persistent efforts day after day until you are fittingly rewarded. If you simply acquire the habit of drawing in a deep full breath, at

frequent intervals during the day, expanding first in the abdominal region, you will soon be able to breathe properly. A correct position of the body is very important, for if you have the proper erect posture, and have no constricting clothing about the waist and abdominal region, you will almost instinctively be inclined to breathe diaphragmatically, or abdominally, as we call it. Furthermore, when going out in the open air you will find as a result of this practice that you are unconsciously expanding in the proper manner as suggested. In fact, you will be more inclined to breathe freely and deeply at all times if a proper position is maintained.

It is hardly necessary to mention the necessity for breathing pure air, and especially when taking deep-breathing exercises, if you wish the very greatest results. Take these deep breaths when in the open air, or else before an open window. It is a good plan, for instance, when rising in the morning to stand before an open window and inhale perhaps a dozen full, complete breaths. This will help greatly to brush the cobwebs from your brain and brighten you up for the day's duties and responsibilities.

All of these suggestions apply with equal force to both sexes. Because of the fashions of dress usually in vogue the breathing of women is much more restricted than that of men. Furthermore, they are generally less inclined to athletic pursuits involving exercise which compels deep breathing.

The method of breathing recommended for women is absolutely identical with that suggested for men. It is a curious fact that until recent years the world generally, the medical profession included, held the opinion that there is a fundamental difference between men and women in breathing. Observation of the natural breathing of boys and girls would soon prove the absurdity of this opinion. Owing to the universal use of the corset, thoracic breathing, or chest breathing, the result of the artificial constriction of the body at and below the waist line, appeared to be the natural method of breathing for women, whereas diaphragmatic breathing was recognized as proper and natural for men. Only in recent years have medical authorities recognized that this difference was really due only to artificial methods of dress and that natural breathing in women and men is absolutely the same. Recent fashions have permitted the enlargement of the waist line in women, but unfortunately there is still too much constriction of this important part of the body. When the world becomes more truly civilized and our methods of dress are based upon common sense and an intelligent understanding of the physical

requirements of the body, we may hope that the dress of women will be such as to permit entire freedom in the matter of breathing, and the easy expansion of the body at the waist line. Some day women will learn the value of suspending skirts, stockings, etc., from the shoulders instead of relying upon the restriction at the waist as a means of support.

If you wish to ascertain more exactly whether or not your breathing is entirely satisfactory, stand up, take a deep breath, and observe not only the expansion in the region of the stomach and abdomen but also at the sides and in the back. If you place the palms of your hands upon the lower ribs in the back, just above the waist line, you should feel the expansion of the body in this part pressing upward through the action of the diaphragm as a deep breath is inhaled. Also by pressing the hands upon the lower ribs at the sides, just above the waist line, you will feel the lateral expansion in this region at the same time that the expansion is noted in the front of the body. You will therefore realize that there should be an expansion of the lower ribs at the back and at the sides along with the expansion in the region of the stomach and abdomen. Of course, when a very full breath is taken there will also be an expansion of the chest following the filling up of the lower part of the lungs.

CHAPTER V

HINTS ON BATHING

THE ordinary practice of bathing is of great importance in accelerating the activity of the functions of the skin. Many diseases would be prevented if the skin were thoroughly cleansed with due regularity.

Probably a weekly soap-and-water bath is all that is absolutely essential for cleanliness if one follows a daily regimen which will maintain a condition of internal cleanliness. In fact, the cleansing of the external body is not required with such frequency if one secures sufficient muscular exercise and follows a dietetic and general regimen that will guarantee sufficient activity of all the eliminative functions; but if one neglects to employ other measures that help to maintain the purity of the blood and the activity of the skin, then more frequent baths are required to insure cleanliness. It has been my custom to recommend a hot soap-and-water bath once or twice a week, depending upon the individual requirements, and a daily cold bath. The hot bath is to be used as a cleansing agent while the cold bath is a tonic exclusively. A regimen of this sort will usually be satisfactory where one is taking a general system of exercise nearly every day which will insure a certain amount of internal functional activity.

There has been much controversy as to whether or not cold baths are really beneficial, since in some cases they have proved harmful. Under such circumstances the failure to secure good results may have been due to ignorance of the principles involved and to the lack of vitality essential to reaction from the shock of the cold water. A great deal depends upon the manner in which the cold bath is taken and the physical condition of the individual taking it.

A cold bath is a strong stimulant to the entire circulatory system, provided one can recuperate with a feeling of warmth immediately thereafter. If this feeling of warmth does not follow, if you feel cold, uncomfortable, nervous and trembling for some time after the bath, the shock has been too severe and is not of advantage. Under such circumstances it is better

either to avoid the bath altogether or else take more exercise in order more thoroughly to warm the body before taking the bath. Usually if one is warm before bathing and if the cold bath is taken in a warm room it is easy to recuperate from it. Another good suggestion in a case of this kind is to decrease the duration of the bath. Do not stay in the water too long. In some cases what is sometimes called a hand bath may be advantageous. This bath is taken by merely wetting the hands several times in the water and applying the moist palms to all parts of the body. The familiar sponge bath, so-called, using either a sponge or a washcloth, is often advised, although the hand bath just mentioned is even easier to take.

I have also frequently recommended the use of the dry friction bath, following exercise, as a means of preparing the body for a cold bath. I have already referred to these dry friction rubbings as a means of accelerating the activity of the skin. This friction bath will, in nearly all cases, warm the skin sufficiently to enable one thoroughly to enjoy the cold water. In fact, this friction is to a cold bath what appetite is to eating. You should enjoy your meals and you should enjoy your cold bath. It is only when the cold bath is a pleasure that it is a benefit. If you dread it, if the mere thought of taking a cold bath brings a shudder, it will not be of benefit to you. You should feel sufficiently vigorous and vital really to enjoy it. A friction bath will put your skin in a condition where the cold water will "feel good." Exercise that thoroughly warms the body will naturally have the same effect.

The statement has often been made that to take a cold bath when overheated is dangerous, just as it would be to drink a large amount of very cold water when overheated. It is said that one should wait until he cools off before taking the cold drink or cold plunge. To a limited extent there is wisdom in this advice, especially as it applies to getting into cold water when overheated and then remaining there until you have cooled off. Such quick cooling is certainly dangerous, just as drinking too much very cold water is dangerous. The danger in such cases lies in remaining in the water until chilled. On the other hand, a short, quick, cold bath under such circumstances is not dangerous but highly advisable. As a matter of fact, when one is overheated he can thoroughly enjoy the cold water. You will recuperate quickly under such conditions and you can better afford to take a cold bath when very hot than when chilled. It is always best when overheated to cool off gradually, and after the bath taken under such circumstances to use a

sweater or bath robe or other covering to insure the desired result. When one is overheated, it is best to drink water lukewarm or hot or only moderately cool. If you drink lukewarm water when overheated you can take any quantity desired.

Do not attempt cold bathing when you have "goose flesh" or when your hands and feet are cold. Under such circumstances the hand bath is preferable.

Many who enjoy a cold bath are inclined to stay in the water too long. In this way one may deprive himself of some of the benefits that might be derived therefrom. It is safer to limit the cold bath to a short period. The chief value lies in the reaction. If this is secured then all is well. The first effect of the cold water is to contract the tissues at the surface of the body, including the blood vessels, thus forcing the blood away from the skin. In the reaction the blood is brought back to the surface in large quantities, producing the glow that is noticed after a successful cold bath. After a short plunge or quick shower this reaction should be secured. By staying in the water too long one may over-tax his vitality and become chilled. When taking a cold plunge simply allow the water to come in contact with all parts of the body; then immediately get out.

If the recuperative powers are defective you should not use cold water, though the hand bath as described should be satisfactory. In such cases, however, by maintaining the warmth of the feet you can recuperate quickly and easily. If you will stand with your feet in hot water while taking the hand bath, or sponge bath, or when using a hand spray in the bathtub, recuperation will be easier. When the feet are warm the circulation is more easily maintained. Following a hot bath, the hand spray can be used for the shower, applying the water quickly to all parts of the body before getting out of the tub. One should always use a cold sponge, spray, or shower, after a hot bath to close the pores, though the degree of cold may need to be adjusted to the individual case. Then rub dry quickly and vigorously with a Turkish towel.

A sitz bath is recommended instead of a full tub bath, as it is a tonic of great value through its effect upon certain sympathetic nerve centers. This bath consists in immersing only the central part of the body, namely, the hips and abdomen. Special sitz tubs are manufactured, but one can use an ordinary washtub. An ordinary bathtub will serve if filled with water about six to ten inches deep. Put the feet on the edge of the tub and lower the hips down into the water. This bath is especially valuable as a means of stimulating functional

activity. The colder the water for the sitz bath the better, although if one is lacking in vitality, it should not be below 70 degrees Fahrenheit. A hot sitz bath may sometimes be suggested for inflammatory and painful conditions of the pelvic region. In inflammation of the bladder, for instance, it is valuable.

When taking hot baths for cleansing purposes the soap used is of some importance; especially so if the skin is thin or too dry. In such cases strong soaps are injurious, although their effect may be overcome to some extent by rubbing the body after the bath with a very little bit of olive oil. I would suggest, however, the use of a pure vegetable oil soap, such as castile, which is one of the best examples of a vegetable soap. This soap may be suggested in all cases, but it is particularly important when the skin is thin or dry. Very frequently dryness of skin is noticed in those of very light complexion. An ordinary warm bath for cleansing purposes need not be taken at a high temperature. In other words a soap-and-water bath will be perfectly satisfactory at a temperature of 103° to 105° F. and need not occupy more than a very few minutes, whereas the hot bath referred to for the special purpose of blood purification may be of longer duration and of a much higher temperature, running up to 110 or 115 degrees Fahrenheit.

There is another type of warm bath, however, which is of special value in many cases. This is what I have sometimes termed a neutral bath, inasmuch as it is neither hot nor cold. This is a bath at about the temperature of the body, that is to say, 95 to 98 degrees Fahrenheit. It is neither stimulating nor weakening, and one could remain in such a bath for hours without harm. One should use a bath thermometer to be sure of the right temperature. This neutral bath has a sedative or quieting effect upon the nerves through its effect upon the innumerable nerve endings in the skin and is a valuable means of overcoming excitement or nervousness. In attacks of mania it is especially valuable, and is now extensively used in all insane asylums because of its wonderful effect in quieting the nerves. This bath at 98 degrees is also especially commended in the case of severe burns covering a large surface. It is about the only way in which a person suffering from such an extensive burn can be made comfortable. It is also one of the most perfect forms of treatment in a case of that kind. The serious character of the burn depends not so much upon the severity as upon the extent of the surface involved. There-

fore, one who has been seriously burned could remain immersed in a bath at 98 degrees F. for many days continuously, or until the skin has had a chance to heal.

In addition to the external baths here suggested, I would call your attention to the importance of internal bathing. Every

The knee-chest position.

time you drink a glass of water you bathe internally, and if plenty is taken and a general régime of right living is followed, the inside of the body should be kept in a sanitary condition. It is sometimes necessary, however, to cleanse the lower part of the alimentary tract, the rectum, by taking an enema.

The best way to take this internal bath, or enema, is as follows: Assume the knee-chest position by first kneeling, then bending the body forward until the chest or the folded arms reach the floor. This elevates the hips and allows the water to

The enema may be taken successfully while lying on the back.

enter the intestines without undue pressure. The bag containing the water is placed about two feet above the hips and the water is introduced slowly. Warm water is used, at about 100 to 102 degrees F., and two quarts is usually the maximum taken. If less will produce results, so much the better. The water is not retained, but ejected immediately. If the patient is not in condition to assume the knee-chest position, the enema can be administered while he is lying on the back, but the hips should be elevated on a pillow, instead of lying flat as shown.

CHAPTER VI

SLEEP AND REST

WE spend one third of our lives in sleep! That is a remarkable thought, when first it strikes us! For, if we do not sleep a full eight hours a day during the adult period of our lives, we fully make up for it in childhood and old age, when more sleep is required. The importance of this condition, and the necessity for making sleep sound and refreshing is, therefore, manifest.

We all know that in childhood we sleep a great deal; a baby spends a good part of its life asleep. Kittens, puppies, and the young of all animals do the same thing. As we grow older we require less sleep; but as age advances more sleep is again required, especially under the conditions of modern civilization.

If the child does not get enough sleep, it becomes restless and irritable; and, if the deprivation is prolonged, it will grow old prematurely. We have all seen the tired, wan faces of those children who have been deprived of the sleep they should have had. Girls know very well that they must have their "beauty sleep." Older women also appreciate this fact, and usually insist upon reserving certain nights each week when they may go to bed early—to "catch up," as it were, and supply the tired brain and body with the rest it needs.

We cannot keep vigorous and young without plenty of sleep. It imparts vitality and resiliency to the mind and body as nothing else can; and the loss of one night's repose is far more detrimental to the body than the omission of even several meals. (In fact, in most cases, the latter results only in benefit.)

Of course, the amount of sleep required differs considerably in different cases. We all know that Napoleon and Edison are credited with only five hours sleep a night; but if the average person tried to emulate this example, it would probably lead to disastrous consequences. From seven to eight hours is probably nearly correct for a man, and from eight to nine for a woman.

Those having nervous, highly-strung temperaments require more sleep than those who lead a placid, uneventful inner life.

It is the operations of consciousness which wear out the nervous system—and it is the nervous system, primarily, which requires sleep. But, of course, any kind of physical activity or muscular exercise creates losses which can only be repaired by sleep, and if this is denied, nothing else matters. The retreat of the British armies from Mons, at the beginning of the Great War, affords one of the most remarkable examples on record of the body's imperative need for sleep. The men marched for practically five days and nights, without halting, and subject to incessant attack. Then they turned and fought one of the greatest battles in history. At the end of that period the men dropped and slept in their tracks; wounds made no difference to them; hunger and thirst were forgotten, swallowed up in the great, primal need for sleep! Men lay wounded, legs and arms shattered, chests torn open, maimed and bleeding; it made no difference to them; all they craved was sleep—and they slept, in spite of their terrible injuries, their hunger, pain, thirst and fatigue. In the mud, in water, on the road, anywhere; it made no difference; all they craved was sleep!

This instructive chapter in human history shows us how fundamentally important sleep is to us, and how the craving for it may swallow up even great bodily pain. In fact, it has been calculated that, on the average, from a week to ten days without sleep is enough to drive a person insane.

Roughly speaking, the amount of sleep required corresponds to the amount of mental and physical work we are called upon to perform. The more activity, the more sleep; and vice versa. As a matter of fact, many people do not arrange their lives in this way, and sleep and eat just as much when they are doing nothing as when they are engaged in the most strenuous activities. This is a great mistake, and cannot fail to produce harmful results.

It is possible to sleep too much, as well as too little. A certain change in the respiration takes place after a certain number of hours' sleep; and if the subject does not get up then, but continues to doze in slothful idleness, he will not only put on weight, but harm himself also. Carbon dioxide will begin to accumulate within the system; and the result is that when such a person does arise he is tired and sluggish, instead of fresh and vigorous, as he should be, on arising in the morning.

It is better to wear out than rust out. We can all do more work than we actually do, if we make up our minds to do so. William James wrote an essay on *The Energies of Men*, in which he called attention to this fact. He drew attention to the runner

who, when on the point of giving up, will often experience a "second wind" of energy, if he makes one final effort to keep up. It is the same with all of us; in the race of life. The man who does little mental or physical work apparently requires as much sleep as the man who does a great deal. If a farmer comes to a great city, the noise and the excitement wear him out for the first few days. After that, he no longer reacts as he did; he grows accustomed to it all, and he is no longer tired and exhausted. He is, in short, living upon a higher plane of vitality. He lives more fully, yet he requires no more rest and sleep. This is what we should all strive to do—to live more fully during our waking hours; and then we sleep more deeply and restfully at night, without necessarily sleeping any longer.

As age advances, it is certain that more sleep is required, as a general rule. The activities of the body are less, it is true, but so are its powers of resistance and recuperation. In order to keep the energies of the body at their highest possible level, therefore, a plentiful supply of sleep is needed. In all cases, where there is worry, excitement, fretting, or any emotional strain, sleep is specially essential.

While it is true that many old people sleep a great deal, there are also those who seem to require very little sleep; they suffer, in fact, from continual insomnia, as age advances. This is easily explained, in such cases, since the conditions of life, in old age, more or less remove the causes of the exhaustion of consciousness. We may recall that in persons of advanced years the passions retire into the background, while the tastes, convictions and character become more fixed. Consequently we rarely find that internal contest of the man with himself, that struggle of noble ideals with selfish tendencies, which consume so much of the strength and health of youth. It is clear that, in the absence of this internal struggle, old men who have preserved their vigor must become much less fatigued than adults; hence they are liable to insomnia.

When this is excessive, however, it must be checked, and cured; and in such cases insomnia is cured by the same methods that cured it at any other time of life. The most important curative measures are the following:

Warm Feet and Hands.—If the extremities are cold, sleep cannot supervene. They should be warmed with fairly vigorous exercises, or in hot water, or a hot-water bag may be taken to bed to draw the blood to these members and away from the brain.

Air Bath.—A thorough airing and ventilation of the skin for some time before retiring for the night is helpful. Even if the weather be very chilly, it is well to give the skin a good air bath, and allow it to become thoroughly cool before getting into bed. The warmth and reaction experienced in bed will induce a delightful drowsiness, and help to induce sleep.

Late Suppers.—Late suppers are not to be tolerated, under the mistaken notion that there must be "something in the stomach" to insure sound sleep. A glass of warm milk, slowly sipped, shortly before retiring, is sometimes permissible; but as a general rule the more empty the stomach the sounder the sleep. A glass of water shortly before retiring is, however, beneficial.

Massage.—Massage is often found very helpful in cases of insomnia. *Friction* also stimulates the skin, draws the blood to this part, and hence away from the head. For similar reasons *hot* or *cold baths* are often beneficial. *Deep-breathing* exercises, taken for three or four minutes, are also great sleep-inducers.

Position—Position in bed counts for much. As a general rule, the best position is along the front of the body, with the head turned slightly to one side. The pillows should not be too high. Plenty of fresh air should be allowed to enter the room from opened windows. Keep the surface of the body warm in bed, but not *too* warm.

Above all, the mind must be made still and inactive. We must not forget that sleep results largely from boredom—hence our tendency to fall asleep during sermons! When we cease to be interested in life, we fall asleep. But if the mind is running along like a mill stream we cannot do this; and we should, in such circumstances, try to make the mind as quiet and blank as possible, by centering or focussing it on one thought, of an uninteresting nature, until sleep supervenes.

One very good method is to imagine (with the eyes closed) a black velvet curtain, stretching away in all directions as far as the eye can reach. Look at this curtain. Think of nothing else. Try to see it black. Make it as black as possible. Notice the folds in the curtain, where there should be shadows. See if these are not blacker than the remaining parts. If you can see a *perfect black,* then your mind will become relaxed, and you will fall asleep.

If you wake tired in the morning, you may rest assured that you have not been sleeping properly. Either the bed-clothes are too heavy; or there is not enough fresh air in the room, or

your system is poisoned by something you have eaten, or by too much food, or you have remained in bed too long. You must take care to remove these causes, when the symptoms will also disappear.

CHAPTER VII

STRENGTHENING THE EYES

THE human eye is one of the most perfect of all structures. It has been built up through millions of years of evolution. It is probably the most exquisitely adjusted, perfectly controlled and extraordinary of all our organs, and it has, normally, the strength and endurance to give perfect service for a lifetime. Its function of sight is the channel through which you know the world that you live in, the chief instrumentality in doing your work.

If you are one of those whose work depends almost entirely upon the constant use of the eyes, you need strong, enduring eyes that are capable of a long day's work without fatigue or strain.

But you need strong, normal eyes not only for working efficiency but for purposes of pleasure. So many of the joys and delights of this world are secured through the ability to see that faultless vision is one of the first essentials of happiness.

It is variously estimated by authorities that one out of every three or four persons in the United States suffers from some weakness or defect of the eyes. A large percentage of these persons wear glasses. A considerable number do not realize that their eyes are defective, but would be advised to wear glasses if they consulted an oculist. It may be said, then, that there are approximately sixty million weak or crippled eyes in this country. This is an abnormal and unnatural condition. There is no valid reason or excuse for such a vast number of defective eyes. There is no more reason why there should be fifty or sixty million weak or crippled eyes in the United States than that there should be that many crippled legs, arms or ears.

If your eyes become defective as a result of a constitutional condition of physical and vital weakness the remedy is clear. The eyes are nourished and strengthened by the blood. If the blood is impoverished through impaired health the eyes will suffer.

If, on the other hand, the weakness of the eyes is due to faulty methods of using them, it is equally possible to ascertain the

cause and provide the remedy. The truth is that defective sight is commonly due to the wrong use of the eyes.

What is commonly known as eye strain is one of the most prevalent complaints with which the ophthalmologist is concerned. It very commonly results in various nervous disturbances in other parts of the body and is given, by most specialists, as one of the chief reasons why eye-glasses should be worn. It is generally taught that the glasses will so rest the eyes that they will recover normal strength. But the ideal plan is to eliminate strain by *correct use* of the eyes.

If you are one of the many who suffer from severe headaches of mysterious origin, it is always well first of all to question the influence of the eyes or any possible eye strain. Headaches due to other causes are always aggravated by eye strain, all of which emphasizes the importance of keeping these organs in a sound, normal and vigorous condition.

The conventional method of treatment for the eyes to-day is to supply additional lenses in the form of glasses, which will assist the eye in its work. These glasses are not in any way related to the definite causes or conditions which are responsible for the defects in question. The eyes may, on the other hand, be strengthened by proper methods of training, when you learn how, just as are our muscles.

When a man puts on a pair of spectacles there is a natural inclination for the eyes to adapt themselves to the glasses, just as the muscles of the legs naturally become weak if one learns to depend upon the use of wooden crutches. Glasses are eye crutches. In some instances the victim of eye-glasses, finding his eyes growing weaker, secures another pair of glasses of even greater strength. When his eyes, adapting themselves accordingly, grow still weaker he gets another and still stronger pair of glasses. The result is a continuous weakening of the eyes, for they naturally adapt themselves to depend upon the magnifying power of the glasses used.

One should resist any tendency to secure stronger and stronger glasses in this way, so that the eyes will not become weaker. Thousands of people who at one time have worn glasses have since learned to do without them.

As already stated, the value of eye strength cannot be fully estimated. And the possibilities in the way of its development are rarely understood. The eyes can be strengthened just as certainly as can the biceps of the arm.

The eyes are turned from side to side and in all directions by

minute muscles which follow our commands. These muscles can be strengthened by exercise to the same comparative extent as can other muscular tissues of the body. Additional strength of these muscles will not remedy all eye difficulties, but it will always be worth while. It brings increased circulation to the tissues and in this way, not only the muscles are strengthened but the tissues that form the eye ball are affected beneficially.

The eyes can also be greatly strengthened by focussing the vision on a small object and changing it from one such object to another near at hand. It is also a help to transfer the vision from a small object near at hand to one a considerable distance away. For example, look at a pencil point near to you, then direct the gaze to a small object a considerable distance away, shifting from one object to another an innumerable number of times. This is a very valuable practice.

One of the principal difficulties in connection with the eyes as one nears middle age is what might be termed "scattered vision."

One becomes accustomed to skimming over things without seeing anything very distinctly, and thus the eyes lose their keenness of vision. In order to see all objects keenly and distinctly, one must practice looking at small objects. This will tend to bring back the clearness of sight formerly enjoyed. For instance, when reading, one should frequently stop and look at a period, transferring the vision several times from one period to another. This will help to develop the desired keenness and to a certain extent to counteract the effect of the scattered vision which comes from the ordinary method of reading.

Then, too, it should be remembered that the eyes are influenced by one's physical condition just as any other part of the body is influenced. If you are suffering from eye difficulties you will always notice that when you feel especially weak and devitalized the eyes are affected similarly. Therefore it is wise, when one is suffering from defects of the eyes, to make every effort to develop the entire physical organism to a high state of vigor. Long walks are especially valuable in developing the vitality which materially affects the eyesight. And if during these walks you make a practice of looking at small objects close at hand then quite a distance away, as previously described, the benefit to the eyes will be all the greater. Put yourself through a process of upbuilding that will ensure purity of the blood, and your eyes will often improve to an extent that will surprise you.

CHAPTER VIII

HOW TO CURE HAIR TROUBLES

PRIDE of hair like pride of race is an old human vainglory. Beautiful hair is always healthy hair and healthy hair properly cared for is always beautiful—beautiful because of its life and luster and elasticity. Venders of tonics and get-hair-quick pomades to the contrary, the chief factors that make for a luxuriant growth of hair are, when all is said and done, just three: Cleanliness, fresh air and a free circulation of the precious life stream to nourish the hair roots. Perhaps I should have put the last first, but cleanliness and fresh air are so revivifying and preservative that they wrote themselves first.

With these three fundamentals in mind it is really a simple matter to care for the hair and keep it in so healthy a condition that it will indeed be a "thing of beauty" and "a joy forever."

To begin with cleanliness: To obtain a condition of cleanliness of the scalp that is conducive to a good growth of hair, it is not necessary to shampoo or wash the hair with very great frequency. The daily "sousing" that so many men give their hair or the weekly shampoo with strong cleansing fluids that some women think necessary to hair health are often just the means of bringing about the condition they try to combat. The shampoo liquids remove (along with the dust and grime) the natural oil upon which the hair depends for its lustre and elasticity. Thus where the scalp is naturally inclined to dryness these too frequent washings only aggravate the state, in the end leaving the hair thin, dry and brittle.

Under ordinary conditions all that is necessary is to wash the hair twice a month. For further cleansing, a daily brushing and a thorough cleansing of the scalp with a soft cloth once or twice a week will be ample. High sounding are the names and many the virtues that are attributed to the various shampoo mixtures; but perhaps the best thing to use is pure Castile soap or an egg or a combination of both, as when a little of the soap jelly (made by boiling the soap shavings in water) is added to the egg which has been well beaten up with say half a tumbler of water. Whenever an egg is used for the shampoo, the water

used must be *warm, never hot,* else the egg will be cooked and it will prove no end of a trial to remove the coagulated egg particles from the hair. Tar soap also is splendid for shampoo purposes.

The simplest procedure for a shampoo is as follows: Wet the hair with only a little water, and apply the cleansing agent. Rub well into the scalp and from time to time add more water to make a good lather. Part the hair to expose the scalp and rub well with the finger tips. Go over the entire scalp in this way and then rinse with several waters, using cold water for the last rinsing. Dry carefully with towels, or, in warm weather, by exposure to the fresh air and sunshine.

The best way to dry long hair without tangling is to take up strands and rub them from the roots down between the towel covered hands. Move the hands down gradually to the ends of the hair, drawing the hair out to its full length. Needless to say the hair should always be thoroughly dry before it is dressed or braided after a shampoo.

Once or twice a week, the scalp should be given a dry cleaning with a soft cloth. Part the hair and with a bit of cheesecloth or old muslin that is wound round the finger tip, rub the part briskly and rather vigorously. Properly done the entire scalp can be gone over in this way and made clean and glowing without tangling the hair in the least. The rubbing loosens and removes dandruff and dust, and the friction draws the blood to the surface encouraging circulation.

This dry cleaning is not to be confused with the dry shampoo which I consider a most harmful practice. In the dry cleaning the skin is by friction stimulated to greater activity while yielding all morbid impurities that are there deposited. In the dry shampoo—but a description of the process will be its own condemnation. Corn-meal, orris root, or a specially prepared powder is sprinkled and rubbed into the hair and then brushed out again. Sounds very simple. So it is, to rub it in. But did you ever try to brush anything like a powder out of your own hair? You may get most of it out, but it is the little that remains that works the havoc. Mingling with the perspiration and the scales the skin is naturally shedding all the time, it forms a deposit that coats the scalp, choking up the pores, and interferes with its action. The natural oil which is so necessary to the health and beauty of the hair is imprisoned, as it were, in the glands, which consequently become distended and further hamper the nutrition of the hair. These dry shampoos are often advised for oily hair, but most of you will agree with me that

oily hair is better than no hair and that is just what this pernicious advice actively followed would bring about.

Where dandruff and dry scalp are being treated, this dry cleaning with a cloth is absolutely necessary to make any treatment helpful. It is by now understood that tonics or oils to be of benefit must be absorbed by the scalp, not merely applied to the head or (as most frequently results) the hair. And so the scalp must be put in a receptive state.

It should be thoroughly cleaned with a cloth or brush, or, better still, both. The hair should be parted and the exposed scalp rubbed vigorously with the cloth covered finger. This will loosen the dandruff and it can now be brushed out of the part in the hair with quick short movements with a scalp brush. Do not brush down the entire length of the hair. This treatment is only to remove the dandruff, not to smooth the hair. When the entire surface of the scalp has been cleaned in this way it is time to apply the oil. Fill a medicine or eye dropper with oil (olive, castor, cocoanut or sweet almond), make a part in the hair and release a drop or two of the oil right into the part. Rub with the finger tip for a minute or so and proceed to the next part. Applied in this way, most of the oil will be absorbed by the scalp and the hair will not be saturated or look unsightly.

The scalp is now ready for massage, but whether or not massage follows the application of the oil, the scalp should in a day or two again be given a dry cleaning. This will prevent any of the oil that has not been absorbed from combining with dust, etc., and forming a coating on the scalp. For above all things the scalp must be kept clean and free to "breathe" as it were.

In massage we have the most efficient way of bringing about an improved circulation to the scalp and hair follicles upon which the growth and actual nutrition of the hair depend.

What physical culture does for the body, massage does for the hair. By such manipulation of the scalp, a free flow of blood (the only hair grower in the world) to nourish the hair roots is made possible.

It is not very easy to treat one's own scalp, and wherever it can be done the help of another person should be enlisted. Where this is impossible one must learn by practice and patience to do it for oneself.

For self-treatment there are three distinct movements that one should become proficient in for a satisfactory and helpful massage.

Loosen the hair. Then with both hands press firmly on the back of the head and move the scalp backwards and forwards on the skull. Do this a number of times, say fifteen, and repeat the movement on the front and sides of the scalp. Now go over the scalp with the following movement: With the thumb and forefinger try to pick up a fold of the scalp and knead or roll it between the fingers. Most likely in the beginning you will be able to just attempt to pinch the scalp, but with continued treatment the scalp will become looser and a fold of skin can then be taken up and actually rolled between the fingers. You will be encouraged to treatment as well as interested to know that the tight scalp is generally the quickest in becoming the bald one. Lastly, rub the entire scalp with the finger tips in this way: Place the finger tips against the head and rub the scalp with round movements describing little circles all over the scalp.

Given a bi-monthly shampoo, a dry cleaning and massage once or twice a week and a few minutes' daily brushing, the average scalp will respond gratefully and an improvement be noticed in a few months.

The daily brushing helps to keep the hair clean and also makes the hair smooth and glossy by distributing the natural oil over it. The friction of the scalp by the use of the brush is also of benefit, though there is a diversity of opinions regarding this point among authorities. Those in favor say it is a form of massage, while the others contend that very vigorous brushing pulls out the hair, the wire hairbrush being their especial aversion. Concerning the wire brush, its use has always seemed to me like scratching the hair with a pin-studded shingle. As for the rest, why "go at" the hair with a hairbrush and a vengeance. A brush can be used with intelligence; with firmness, yet gently, And any doubts regarding it as a cleansing agent can quickly be dispelled by wiping the bristles on a cloth after every few strokes.

Personally, I regard it necessary to the health of the hair to brush it out carefully and braid it each night before retiring. And physical culturists will appreciate the advantage of this brushing if it is done where a current of fresh air can blow through the hair. A good way to keep the hair clean and sweet is to brush it and, leaving it hang loose, sit quietly and rest near an open window. One could even practice breathing exercises the while, but anyway the hair would be getting an air bath as well as a relief from the strain of the way in which it is dressed for the day. It might also be well to add here that an

occasional change in the mode of dressing one's hair is very advisable.

All brushing of the hair should be done after it is combed out, not before, and many a pull and pain will be avoided if this little trick is introduced when combing out tangles or the snarls that curly hair so often gets into. Divide the hair into strands and holding the hair just a little above the tangle comb beneath it. Hairdressers, in fact, always comb hair that way. They never start at the roots and comb down, but begin a few inches from the end, comb out, and grasp the hair a few inches higher. In this way by the time the roots are reached the hair has been stretched and straightened out and any possible tangle avoided or smoothed out without pulling the "head off," as the children always say.

ADENOIDS AND ENLARGED TONSILS

WHY are tonsil operations so extremely frequent in America today? Why are these innocent, overworked organs removed instead of being restored to normal? Because all medical and surgical science has been directed toward the removal of the results of disease instead of toward disease prevention. Why do adenoids develop in thousands of children and add their quota toward reducing vitality? Because the average American mother is not informed how to nourish and care for her children in such a way as to avoid these abnormal conditions. Both the operations and the diseases are unnecessary. Let us take under consideration the case of little Jim.

In most respects the boy had had good care. He was sensibly dressed. He had fresh air at night. The home surroundings were good. And his main liquid intake was water and milk.

But he did not get half of the exercise that a child needed. And the feeding, which the parents considered excellent, was atrocious, and had been since he was born. For the first year he had either the bottle or the breast every two hours. The doctor explained that the child was underweight and so he had to be fed often and liberally in order to gain weight and strength. In seven years he had not made the physical grade, but he had acquired a nice lot of disease symptoms. After he was weaned, he was fed six times a day and at the age of seven he was getting three meals and three lunches per day. The child was often nauseated and objected to food, but under professional advice the parents urged him to eat anyway, for he "must have lots of nourishing food to build body structure and increase his strength."

Most boys will exercise enough through play, but Jim did not and he was not encouraged to play. "He is too delicate to be out in damp weather, you know," his parents said, and all the rest of that line of bunk.

At the age of seven, this is what we found: A bright boy, tall enough but too slender and too pale, indicating anemia. Generally, children in his condition tend to be dulled intellectually, and have a stupid look, the latter largely due to the thickening of the upper nose and the open mouth. His in-

ternal organs were structurally sound, but his digestion was subnormal. There was too much gas in the stomach and bowels. His tongue, instead of being pink, was rather pale gray and heavily coated at the base. It had always been pale, the mother said. His tonsils were so large that they almost met when being examined, and the soft palate was engorged so that the uvula sometimes reached down and tickled his throat. Of course, he had adenoids—I never saw a child with chronically enlarged tonsils who did not have adenoids. His nose looked pinched in the lower part and thickened above—a typical adenoid nose. He kept his mouth open. He was fidgety and capricious. He was often inattentive, due to the fact that at times he was somewhat deaf. He had profuse nasal discharge. With closed mouth his breathing was difficult. His appetite was capricious.

There were other signs and symptoms of physical perversion, but these are enough to indicate the condition. His teacher, physician and parents thought that he was suffering from adenoids, and enlarged tonsils. He had those troubles in aggravated form, but adenoids and enlarged tonsils are not diseases; they are merely symptoms or effects.

The real trouble with this boy was acid indigestion, which resulted in impure, irritating blood, which in turn caused catarrh, adenoids, enlarged tonsils, and the whole list of symptoms already enumerated. The chief cause of the trouble was the overfeeding of unsuitable foods, largely aided by underexercise—too little play.

The usual procedure in such cases is to remove the adenoids and the tonsils. The school nurse and the physician said that this must be done. But the parents did not want to risk losing their only boy, for they had knowledge of one child who had bled to death after tonsillectomy. Removing the tonsils is considered a safe operation, and fatal results are few, but they do occur. The adenoids operation is more free from danger.

After discussing the matter, the parents decided that they would do anything to make the boy well, rather than have him operated on, so we pointed out old mistakes and made the proper corrections, and here is the summary:

His breakfasts had been: Two eggs, one kind of cooked mushy cereal (such as oatmeal or boiled wheat meal) with sugar and cream, white bread and butter, and a glass of milk.

Isn't that a splendid breakfast for a delicate, inactive child

of seven? It would be enough for a ditch digger, and a mighty poor breakfast for anybody, whether child or adult.

What is the matter with it? Two eggs and a glass of milk contain too much protein, so instead of building health they build acid blood and the catarrhal state. The mushy foods are never properly masticated by children (and very seldom properly masticated by adults), so they should not be given to young people. The cream and the sugar overstimulate the appetite, hence there is overeating. As a result the meal, instead of properly digesting, goes into abnormal fermentation in the stomach and in the bowels, producing carbonic acid gas, vinegar, alcohol and other harmful substances, which are absorbed into the blood and act as irritants and slow poisons. The white bread is deprived of nearly all the purifying, health-building mineral salts, the vital nuclein of the wheat, and the naturally laxative qualities in the bran. To summarize: A breakfast like this contains so much of protein and starchy and sweet nourishment that it sickens the child, and it is so deficient in the purifying and building compounds that a child cannot develop a healthy body.

We changed the breakfast, and made it as follows:

Whole wheat toast or biscuits, with moderate amount of butter.

One kind of naturally sweet fruit (figs, dates, raisins, sweet prunes, bananas).

One glass of milk.

A sample breakfast would be: Stale whole wheat bread toasted and thinly buttered, raisins, and a glass of milk.

The milk contains enough protein for a meal. The whole wheat bread has all the starch needed, and besides contains the necessary salts for body growth and physical health. The raisins are rich in sugar that is far superior to any refined sugar obtainable, and they satisfy the craving for sweets; also they furnish the mineral elements needed to keep the blood pure. All the sweet fruits are very nourishing, much more nourishing than a like amount of lean meat, or potatoes.

The milk was limited to one glass—eight ounces—at a meal, but he could have all the toast and raisins he wanted, provided he ate them slowly and masticated well.

One of the most important parts of feeding instructions follows: He used to come down and grumble. "I-don-wannee-breakfas." And now a part of his feeding regulation was that if he failed to show interest in his food, if he complained about

it, or if he said he did not want any, he was not to be given any food that meal, but he was to wait until the next meal. This rule, strictly applied to lunch and dinner too, soon cured him of the capricious appetite. He was soon glad to eat at meal times. It is always a mistake to coax children to eat. If parents persist in this practice they will cause periodic illness and even death of their children.

In the middle of the forenoon, he had been getting milk and crackers. This we changed to:

Air, all he wanted.
Water, if he wished it.
Play in the open air.

We shall not analyze this forenoon lunch.

His noon lunch had been: Meat broth, white bread, butter, potatoes, milk, and a cooked fruit with plenty of sugar. Cake or cookies were frequently added.

This is a poor meal for the same reason that his breakfast was poor. Meat broth, which is considered so nourishing, is a poor sort of slops with most of the impurities of the meat in it, but the ordinary unthickened broth contains less nourishment to a cup than a few tablespoonfuls of milk. But broth does contain the stimulating extractives in the meat, and stimulation is one of the things that this boy did not need.

We planned his noon lunch along these lines:

Whole wheat bread, or corn bread, or the whole rice plainly boiled—one of these with butter.
One fresh cooked vegetable.
One raw fruit.
One glass of milk.

A sample lunch: A dish of boiled whole rice, butter, plainly cooked string beans, a raw apple, and a glass of milk.

The rice and butter and milk furnish materials for heating, energizing, building and repairing the body. The string beans and the apple furnish roughage for the bowels, cleansing salts and juices, and the vitamines needed by the body.

You may have heard that fruits and vegetables should not be used in the same meal, that they are incompatible. The only objection to the theory is that it is not founded on fact. With good digestion, fruits and vegetables harmonize very well in the same meal. If the digestion is below par almost any combination may disagree and result in gas formation.

Jim's mid-afternoon lunch was usually bread and butter with

jam or jelly with another dose of milk—food becomes dope when one is forced to swallow it.

We gave him the same kind of meal at this time as in the middle of the forenoon—air, water and play. If he was exceedingly hungry a raw apple or one orange was allowed, but that was the limit.

For dinner the child had been getting a "good nourishing meal" of meat with thickened gravy, potatoes, bread, a starchy pudding and milk. Sometimes he ate a fresh vegetable, but most of the time he refused it.

Is it any wonder that the boy was nervous, full of catarrh, suffering from acid indigestion, and enlarged glandular structures in his throat? In this meal they were trying to founder him with proteins and starches. Milk and meat are too much protein for any meal; bread, potatoes and a starchy pudding contain too much fuel. Meals like this, in a sensitive person, give indigestion instead of furnishing proper nourishment. And such meals are almost devoid of health-giving qualities—natural cell salts, nucleins and vitamines.

We changed the dinner to a plan along these lines:

Baked potato, or potato cooked in the jacket, with butter.
One or two plainly cooked fresh vegetables.
Either cottage cheese, or a glass of milk, or an egg custard, or eggs—one of these.
Either a raw fruit, or a raw salad vegetable.

Here is a sample dinner: Baked potato with moderate amount of butter, cooked carrots, cottage cheese, and celery. We gave him the vegetables first, and the rule was that if he was not hungry enough for vegetables—and he got a goodly portion of them—he was not hungry enough for anything else.

If one potato was not enough, he would get two. He had all the food he wanted, all he would eat with a relish, provided he masticated well. Puddings and cakes and pies we omitted from the menu, but if he was sweets-hungry, we allowed him raisins, or figs, or dates, or sweet prunes, or ripe persimmons, but only one of these at a time. They are good foods, but we can overeat of even the best of aliments.

We did not give him any liquids while he was eating. He could drink before or after the meal, but not during the meal. His milk was sipped either at the beginning or at the end of the meal, when he had milk, but he was not allowed to wash down his solid foods with milk. He had to chew them so that they were well mixed with saliva. Meat was omitted

from his diet. It is not fit food for his type of childhood; it is not good food for any young child, for it is too full of waste, and too stimulating. Also, in case of indigestion the poisonous by-products are too powerful for children.

He was sent out to play every day, irrespective of weather condition. If it was damp outside, he was properly dressed. He was shod so that his feet remained dry, and if they happened to get wet, his feet were rubbed dry and warm when he came in and dry shoes and stockings put on.

In a few weeks the catarrh and periodic deafness vanished. His indigestion and indifference to food did not last a month. Within two months his nasal breathing was good, though not yet normal; within the same period the tonsils shrunk perceptibly, and color started to appear in his cheeks. In four months he had no bad symptoms. By reducing his liquid intake late in the day and getting him to drink more in the morning, and instituting the health measures here described, the bed wetting was soon overcome.

When Jim was eight years old he was a healthy little animal, breathing as freely as any child, and his tonsils had shrunk to normal. He was as healthy as any boy could be and as heavy as any child of his type ought to be. He is a regular boy now, he likes to be out with the fellers, he has been known to swear, he fights when it is necessary, and has the other basic attributes which we love to see in a boy.

You can apply the moral to your Jim or Jane. But let us take a general view of the subject of adenoids and enlarged tonsils in children.

Children differ structurally in many respects from adults. Their cells are more active, and their body tissues are not so stable. Among the least stable of physical structures are the glands. They are quickly thrown out of balance, and that is the reason we find so many subnormal children with "kernels" in the neck and other parts of the body. These kernels are enlarged glands.

The adenoids, sometimes called the third tonsil, are glandular or gland-like structures in the roof of the throat, right back of the nasal cavities. If anybody knows what good they do, he has kept the secret. But they are normal to childhood, and generally vanish by the time of puberty. Sometimes they persist. That is, the normal adenoid tissues are present in childhood. What we usually speak of as adenoids is an abnormal swelling of the adenoid tissue. When this occurs, the breathing is affected, the child becomes a mouth breather, the palate is often

pushed upward, and the teeth thrown out of line. The whole respiratory apparatus is adversely affected, for the lungs want air properly strained, moistened and heated by passing through the tortuous nasal cavities. Mouth breathing is often one of the causes of laryngitis, bronchitis and asthma. Inhalation should be through the nose; exhalation can be through either nose or mouth, or through both.

Some day someone may find out what purpose the adenoid tissue serves in the throat. Perhaps it is only a vestige of some organ that served a useful purpose ages ago, but which we no longer need. At present it is as mysterious as the thymus gland, which we find in the neck and thorax of the infant, but which starts to atrophy in the second year of life and in a few years vanishes. Seemingly this gland has something to do with infant blood elaboration.

We don't know what electricity is, but we know enough to make it work for us. We do not fully understand the purpose of some of the physical structures, but those of us who have studied the laws of nature as applied to man, without prejudice, have learned how to read the reactions of these structures as signals, telling us what to do to improve the human body.

The tonsils are not understood in relation to our present development. They may be another structure that we no longer need. The human race has been in the mending and making for so many ages that it would be queer if a few scraps were not stuck away in some corner. However, when we get so wise and so smart that we say, "Let us remove this organ and that organ from this human being, for he is better off without them," it is well to remember that Nature has succeeded in making a living, breathing, thinking being called man, but man in all his vaunted wisdom has never succeeded in making even the simplest of independent beings that would live and breathe, not even a worm. From this fact we can safely deduce the general rule that the less we carve a human body the better for the individual.

Adenoid operations are very simple, and in only a few cases do the adenoids reappear again. I have seen no harm come from such operations. If a child is suffering from adenoids, and the parents do not wish to take the time and the trouble to care for the child so that the general health improves and the adenoids vanish, then by all means let them have the adenoids removed surgically. Adenoids are always a handicap, for they prevent natural ventilation, and children need plenty of fresh air. Children often brighten up wonderfully

after an adenoid operation, but remember that the adenoids are only a symptom or an effect of poor environment and inadequate care—especially wrong feeding.

Tonsillectomy is not as successful as removal of the adenoids. Once in a great while a death results; often the sore throat persists, and it is not uncommon to hear people complain of "pain in the stump." Enlarged tonsils, too, are merely an effect of wrong living, so that the blood becomes impure and too low in alkalinity. There is always too much acid in the body in these cases. Hyperacidity is caused chiefly by wrong eating that leads to indigestion, and poor elimination. The poor elimination is due largely to underbreathing and underexercising.

Let us briefly enumerate the most important points in rebuilding health so that adenoids and enlarged tonsils will subside:

1. Encourage the child to play, for play is the exercise of youth, and a vital necessity for normal health.

2. See that the ventilation is good at night but that the child is kept warm. The feet should always be warm, night and day.

3. Be sure that the bowels act regularly. If the exercise and feeding are correct the bowel function will be normal.

4. Dress the child for comfort, but avoid "armor-plate" underwear made of wool, which overheats the little one while housed, and then causes congestion or colds when he goes into the cold air.

5. The eating is the most important item, and it has been quite well detailed in Jim's case. Teach the child to eat slowly and masticate well. Stop the feeding of starchy mushes, white bread, fried foods, white sugar, flour gravies, meats, pickled and preserved foods. Feed the child on fresh milk, whole wheat products, or other whole grain products, such as brown rice, fresh raw fruits, dried or evaporated sweet fruits, cooked fresh vegetables, raw salad vegetables, baked potatoes, and several times a week cottage cheese, eggs, and egg custards. Make the combinations along the lines suggested for Jim, always having the meals simple. Limit the amount of milk to one glass a meal, and if eggs, custard, or cheese is used, omit the milk that meal.

6. Give only three meals a day. If the child gets unreasonably hungry in the afternoon, give an orange or apple, but nothing heavier. Never encourage or coax a child to eat, for every youngster will eat all that is necessary, and generally a little more, without being asked.

Babies with a catarrhal condition are overfed. Their feedings should be reduced to four or five in twenty-four hours. Always let four hours elapse between feedings. If a baby is fed on the

bottle it should have orange juice or fresh tomato juice in its drinking water once or twice a day.

If a child gets acute tonsillitis, all feeding should be stopped. The throat gets very sore and appetite vanishes, and this is Nature's way of declaring a food embargo. Give a cathartic, such as castor oil, to clear the bowels; keep the child comfortable; if the throat is so sore that drinking is torture, gently inject a cup of water by rectum at least four times in twenty-four hours. Give no food, liquid or solid, until the fever disappears and the throat is easy. There is no danger in having a child fast three or four days. The little one may get a little pale, peaked, and thin, but when eating is resumed that is soon remedied. On this treatment the trouble is soon over, without complications. If the child is fed, the disease is prolonged and there are apt to be complications.

Adults can fool with their throats if they want to, but a child's throat should be handled with care. If any local treatment is to be administered, it should be done by someone with the proper training, skill, and experience. It is safe to use warm gargles of either common baking soda or else common table salt, one teaspoonful dissolved in a pint of water, or to use such solutions to swab out the mouth and throat. But no amateur should attempt to use instruments, or antiseptics, or strong remedies in a child's throat. The chances of making a mistake or causing injury are too great.

The salt solution is a gentle astringent. The same is true of glycerin, mixed with water, which may be used if the throat is badly swollen.

A wet pack on the throat is always good in these conditions. It is safe to use a cloth wrung out of warm water, so that it is quite wet but does not drip. Wrap this about the neck, or merely place it on the front and sides of the neck, if you can make it stay that way; have this wet cloth well up under the chin. Cover this wet cloth well with several layers of flannel, which need not be red. Let this stay on for about an hour. It is usually very helpful in helping to reduce engorgement, and the earlier it is used the more helpful it is.

In adults tonsils are occasionally seen that should be removed. In children removal is the fashion, but it is not necessary. Of course, if they should have abscessed tonsils, free incision to allow the pus to drain is the correct treatment.

If children are properly treated, there will be no dangerous adenoids and tonsils. Correct feeding, plenty of fresh air, and play prevent adenoids. They also bring about a cure after

the tonsils have become engorged and enlarged. Removing the tonsils is cutting out a symptom. Correct care is giving the child vastly increased chances of physical, mental, and moral success in life.

ANEMIA (THIN BLOOD)

DEFICIENCY in the number of red blood corpuscles or of hemoglobin. In anemia the general symptoms are: pallor of the skin, which is cold and sometimes clammy; a soft, feeble pulse which may be rapid; weakness, with a tendency to fainting spells. There is lack of appetite, generally constipation and sometimes indigestion; shortness of breath on exertion is marked, and combined with palpitation, nervousness, listlessness, irritability, headache and neuralgia.

There are two forms of anemia, the acute and chronic. The general characteristics of both are a lack of nutritive elements within the blood.

Acute anemia is always produced by a loss of blood. Occasionally a surgical operation is responsible for the malady; or again, the bursting of an ulcer in the stomach, or the rupture of a blood vessel in any part of the body. Some of the diseases peculiar to women often produce this form of disease. It may develop within an hour from a copious drainage from the veins, or it may be several days in reaching a climax in consequence of repeated small hemorrhages.

Chronic anemia is characterized by the symptoms previously mentioned. Women are much more liable to chronic anemia than are men, principally owing to the fact that they have about one-tenth less blood in proportion to the weight of the body than has the other sex. Intestinal parasites, as worms, are a fruitful exciting cause, likewise chronic dyspepsia. A fever, by its interference with nutritive processes, will also produce an anemic condition.

A comparatively rare form of the disease is that termed *pernicious anemia.* It appears to be of comparatively modern development. It is apt to occur during pregnancy, generally in the case of women who have borne children in rapid succession. It develops in men, also, and from unknown causes. It is a dangerous condition, and is sometimes marked by discoloration of the skin.

The direct causes which produce these various forms of anemia

are, like those to which nearly all diseases that vex humanity can be attributed, the result of impurities circulating within the blood and lymph streams, with a consequent decrease in general vitality. The circulation is charged and clogged with impure and waste material that should have been eliminated by the excretory organs. Hence the red corpuscles are in what might be termed a smothered condition. They are incapable of absorbing their proper proportion of oxygen, and carrying this life-giving element to the tissues of the body. Hence the futility of endeavoring to correct such a condition by the use of drugs, tonics and medicaments, should be apparent.

TREATMENT.—In the treatment of this complaint it is required primarily that one undergo a general blood-purifying process. The first essential in attempting a regimen of this kind is naturally a fast. If one is above or at normal weight then this fasting process could be continued for a considerable time with material benefit. If one is below normal weight, indicating a serious difficulty of the assimilative organs, as well as defects in the blood-making organs, then, of course, the fast could not be continued for a very long period. As there is great weakness associated with this disease many may fear that a fast might materially aggravate these symptoms. In many cases of anemia, however, a fast will actually be the means of adding to one's strength; in other words, day by day, as one continues the fast, the strength will increase. This is, of course, caused by the improvement in the quality of the blood, which is made possible by the removal of systemic toxins.

Frequently it is well to take a short fast or fruit juice diet, continuing as long as the patient feels that no unpleasant results are coming therefrom. If one is emaciated the fasting should not continue more than from one or two to six or eight days and then the fast should be broken with fruit for a day or two. The milk diet is especially desirable in this disease unless one is above normal weight, and even under such circumstances the milk diet, if followed from one to two weeks, would be especially valuable. If the milk diet is not taken, at least considerable milk should be used in a vegetarian diet. This diet should consist of fruit, vegetables, whole grain cereals, nuts, and, as mentioned, considerable milk. A general vitality-building regimen applicable to the strength of the patient should be carefully followed out each day, being sure to add daily to the length of the walk and to the vigor of the exercises taken as strength is gained.

One should in every way endeavor to build up the heart and

lung power. Deep, diaphragmatic breathing is essential. Outdoor life, sun and air baths and light sports will be of great value. The patient should sleep out of doors if possible, but always in a thoroughly ventilated room, and abstain from prolonged mental effort. Fruit juices are highly beneficial and should be used at some time each day.

ASTHMA

AT the age of thirty-five years I began to grow stout, and though it was at this period that the clouds of disease were gathering, even my medical associates told me that I was looking splendid. They mistook *bulk* for *health*. At forty-five years of age I was pushing in front of me quite a bay-window; my breath was short, and the comfortable easy-chair began to hold considerable attraction for me.

My weight increased to over two hundred and thirty-eight pounds,—though I never would admit that I weighed over two hundred and twenty-five. I do not think any gentleman should weigh over two hundred and twenty-five pounds when his height is only five feet ten and a half inches.

As I increased in bulk my breath grew shorter, and I had less inclination to move about, I became nervous, irritable, cross and disagreeable. My lips and veins became very dark in color, I would become drowsy and sleepy on all occasions, but my naps, dozes or sleeps were anything but pleasant or restful. When I went to bed at night my head hardly touched the pillow before I would experience the most terrible smothering sensation, resulting in gasping and fighting for breath, after a few minutes of which I would be compelled to jump out of bed lest I smothered altogether, and pass the rest of the long, dreary night in an easy-chair in the library. And oh, how endless and dragging are nights under such trying conditions!

For me the outlook surely was dark, the storm was raging, the star of hope was a faint glimmer only—and I was in the prime of life as the years are counted. A few days after my return home from seeing a great physician, a friend called to see me one morning. As he entered my private office, he remarked, "Senator, I thought you might be interested enough to read an article in this magazine," and placing the magazine upon my desk he closed the door and left the office. I picked it up, and an editorial headed "Nature Cures Disease" attracted my attention, and the thought that struck me as I read

the heading was, "Well, I will read what this damn fool or crazy editor has to say."

The first paragraph hit me like a sixteen-inch shell. Every word weighed a pound and every sentence weighed a ton. It tore up, root and branch, every preconceived idea I had on the subject of disease and its causes and cures.

Again the thought came to me that there is a very thin line between great genius and insanity, and that my first impression was correct, viz.: That the editor, poor fellow, was as crazy as a loon. However, I read the article and concluded that he was not altogether crazy, but more or less reckless.

As I continued my investigations along these lines, I began to lose my faith in medicine altogether. I now call it "Dope." I also began to cut down my food, missing a meal occasionally, and as it did not kill me, began to miss two meals in succession; then I would eat three light meals for two or three days and then abstain from food for a whole day or two. I felt no evil results by so doing, but rather thought I felt a little improvement in my condition, yet I was still timid and cautious and my wife became more or less alarmed at my recklessness or English bull-headedness, as she called it, in going without my regular meals. I concluded by this time that I understood quite well the philosophy of fasting, and I made up my mind that I was going to give it a fair chance and abide by the consequences, no matter what the results might be.

So, on June 1, 1908, I cut out all food and entered upon an absolute fast that ended on the morning of June 24th. Only pure water and air passed my lips during those twenty-three days. I drank about three quarts of water every twenty-four hours. I also took an enema three times a week. During my fast I walked every day to my office, a distance of four good miles, and walked home, eight miles each day, and I frequently took the Mount Troy road, which was a greater distance and very steep. No horse could pull a wagon up that road. Climbing the Troy Hill Road gave me a good sweat and tried my wind.

On the third night of my fast I had a delightful surprise—instead of the dreadful smothering sensation spoken of above I fell asleep almost as soon as my head was laid on the pillow and slept all night through like a healthy baby. The desperate struggle for breath—which no words can describe—was a thing of the past. Oh, the sweet, peaceful and refreshing sleep of that night and the following nights I never can forget, and I may say that a fast of a few days will relieve and cure those

suffering from that terrible disease called "Asthma" when no medicine in the world will or can effect a cure.

On the fourth day of my fast I had a battle royal with habit or hunger. All the devils of hunger were raising hell. They wanted to know if my throat was cut; they made me know in no uncertain language that they were not stuck on water, the only thing passing down my throat, neither were they stuck on prohibition; they yelled and screamed like wild Indians for roast beef, broiled chicken and all the trimmings. I stood firm. Finally Mother Nature came to my assistance and relieved me of my hunger virtually saying, "It is no use calling for food, neither is there any necessity for it, for we will now turn in and clean house and get rid of this old junk hanging around on the walls. We can live thirty, forty or fifty days very well, and after we are through cleaning up this body I will return his desire or hunger for food."

A few days before my fast ended all my pains and aches, shortness of breath and smothering had passed away with my superfluous weight, and I felt as though I had renewed my youth. I was very careful in breaking my fast. I used the juice of half an orange strained and taken every half hour or so, for six hours, sipped; then half a glass of milk, sipped. The next morning for breakfast I ate a small piece of toast with one soft boiled egg. Several hours after I had a little ripe fruit. I kept this light diet up for possibly a week.

The fast renewed my health and almost my youth. My health ever since has been almost perfect. I have not had any sickness or even a cough or cold for the last ten years. I walk on Sundays from ten to fifteen miles over country roads, and jump out of bed the next morning feeling like a two-year-old thoroughbred.

If my friends who are now sleeping in the quiet city of the dead had only known the virtue of a simple diet or the blessings of a short fast, I am convinced they would be with us to-day.

They did not know what awful mistakes they were committing, and the doctors in whom they placed absolute confidence in matters relating to their health don't know, or they don't seem to know, or they don't warn their patients if they do know. But thank God, there is one man who does know, and he is making that great truth known by and through the *Physical Culture Magazine.*

Every month it contains a message of "Glad Tidings and Great Joy" for the weak, ailing and sick. Personally I am

strongly of the opinion that I am living to-day and enjoy splendid health by following its teachings and doctrine. My gratitude is deep and beyond any power of mine to express in adequate words. My enthusiasm refuses to be suppressed, and my sentiments break forth in the exclamation—"Oh, for a thousand tongues to sing" the praises of *Physical Culture*.

The above treatment will prove all that is necessary in many cases of asthma, but in numerous other cases it would be necessary to utilize other factors. One of the most valuable of these is exercise. This should not be strenuous enough to produce rapid breathing, but the breath should be especially deep; every air cell in the lung should be brought into activity and the lungs expanded to their limit without strain. Holding the breath occasionally for a few seconds after a deep breath will be helpful. Drawing the breath slowly through a pipe stem or the puckered lips and exhaling the air in the same manner will be good lung exercise. The type of general exercise may be selected according to individual desires. At all times the lungs must be supplied with an abundance of fresh air, free from smoke, dust, gases, and other irritating substances. Cool sponge, shower or splash baths associated with vigorous friction of the hands, especially to the upper back and the chest, will give marked relief. This is one case where spinal manipulation treatment gives excellent results. This may be given as massage, or by some of the specific spinal treatment methods.

All efforts should be made to avoid too great physical fatigue. Sleep as near as possible to an open window. It will not be necessary to smoke or inhale burning powders and leaves of various kinds for the relief of this condition if one employs the methods enumerated here.

AUTOINTOXICATION

AUTOINTOXICATION is a laxly applied term that originally meant by intoxication or poisoning produced within the body by chemical imbalance. At present it means the same plus toxemia resulting from absorption of harmful and unnatural substances from the digestive tract. These substances are formed naturally in normal digestion but they are also formed in larger amounts and are more harmful in nature in abnormal digestion.

The causes are usually a clogging of the digestive tract by constipating foods and those which have a tendency to putrefy and ferment, also the failure of the eliminative organs to carry off these normal and abnormal products. All of our nourishment except that of air, reaches us through the small and large intestines. There are minute elevations in which are delicate blood and lymph vessels, and the surfaces of these tiny elevations are arranged for taking up the liquefied food products present in the digestive channel.

Unfortunately these cells which allow the food to pass through into the body have no knowledge of what is good and what is bad for the physical economy. Whatever is in connection with them that is liquefied and absorbable is taken up and passed into the blood and lymph streams. If abnormal products are there to be absorbed, these along with nourishing food elements pass through the tissues and circulate to the various organs and structures of the body. If these are in insignificant quantities no particular damage may be done, for the natural vitality will overcome their harmful tendencies and they will be neutralized, destroyed, and cast from the system. If the vitality is allowed to be lowered for any reason, or if the poisons are taken in considerable quantities steadily and for a long period of time, the tissues cannot react to them, and harmful effects are produced.

The diet of the average person is full of substances which overstimulate or depress the natural vital forces. White flour products, pastries, sugars, candies, large amounts of meat, etc., are all inclined to produce a sluggish activity of the intestinal

tract, with fermentation and putrefaction in this tract. Cathartics, laxatives, and purgatives are used to whip up the retarded action of the intestinal tract which results in further retarded action through exhaustion of the nerves and muscles controlling it, and its secretions.

Stimulants, spices, and condiments have a similar effect; besides, they have a tendency to produce a low grade inflammation of the delicate membrane lining of the tract, and make it easier for this membrane to take up noxious gases, and harmful and unnatural digestive products. Constipation allows the intestinal contents to remain in the passage much longer than normally, which further aids in the development of unnatural products, and in the absorption of these products.

Many symptoms may results. A very prominent one is headaches, also dizziness. There may be sleeplessness or a drowsy, sleepy feeling, and a general lack of energy. Nervousness, irritability, and fretfulness are prominent in some cases.

Not infrequently the skin is more or less covered with eruptions and there may be fever. Vague aches and pains throughout the body are described by many patients.

In overcoming this condition, which might easily lead to disease of almost any or all organs of the body, it is advisable to make a change in the diet. Usually it is best to fast, so that the intestinal tract can be thoroughly cleansed. At the beginning of this fast it may be well to give a saline laxative to sweep out the toxins as quickly as possible, or the enema may be used in conjunction with drinking large quantities of water. This will remove the substances in the intestinal tract and at the same time allow the body to throw into this tract, especially from the liver, considerable quantities of already absorbed poisons.

The drinking of large quantities of water markedly increases the activity of the kidneys and these carry off large quantities of toxins. Sweat baths, and air and friction baths increase the skin activity so that many poisons are thrown off in this way. Deep breathing where there is an abundance of pure air allows the escape of a considerable amount of poisons through the lungs.

After the fast may be taken the fruit and vegetable diet, or the milk diet may be used to great advantage. A Miss Johnson had a most pronounced case of constipation and autotoxemia, as her bowels did not move at any time without a laxative or enema and she had several times passed eight or ten days without bowel action. Her skin was extremely sallow and the rings under her eyes were deep and black. Her entire body gave

off a foul odor. An extreme pain was felt throughout the abdomen when pressure was given, but this was mainly concentrated in the lower left side. She had had a diagnosis of cancer. The enema brought forth black and extremely offensive discharges. The treatment suggested above was applied and within ten weeks the bowels were acting normally. The skin was perspiring naturally, and the body odor was gone. Pink was showing in the flesh and the circles under the eyes had practically disappeared. Her general feelings had improved 500 per cent., so she stated.

Certainly if an extreme case such as this can be benefited by the natural methods, when drugs had been employed steadily but allowed the case to develop more and more, a milder case should be able to make even more rapid progress toward normal health. Experience in thousands of cases has shown that it will, if the treatment employed is such that the body forces can work toward health and not be required to combat internal and drug poisons.

BACKACHE

BACKACHE is a common sympton of many diseases. Very frequently it is very necessary to know the cause before successful treatment can be given. By this term backache is usually meant a lumbar pain beginning in the region of the first lumbar vertebra and extending down the spine. The pain may be in the center of the back, along the spine, or on either one or both sides of the spine.

The largest number of backaches are due to strain, fatigue, and lack of balance. Strain may result from unnatural posture, a poor muscular balance, or abnormal abdominal conditions such as enlarged or prolapsed organs, obesity, etc. The fatigue may be produced by a constant attitude in some occupation, such as stooping or bending, or by lifting heavy objects.

In many cases the muscular balance becomes abnormal through fallen or broken arches of the feet, or by the use of poorly fitting shoes. The pain in these cases is apt to extend upward from the lower extremity to the back.

In some instances the backache has been so constant or frequent that a neurotic patient will develop a condition of the mind that allows concentration on the back with the result that the pain will be present without any other cause. Such a spine is known as "hysterical spine." Treatment, in such cases, may be mainly general and should be directed toward relieving and curing the neurotic tendency. That is, the entire nervous system must be built up as much as possible. Local treatments, however, will be of value and should include electric light, heat, massage, vibration, etc.

Some backaches are due to an inflammation of the nerves and these cases include simple neuritis or part of a multiple neuritis resulting from alcoholism, lead, or diabetes. The alcohol and lead must be removed from the system, and the diabetes must be properly treated.

A large number of backaches result from points of infection elsewhere. Such infections may be acute tonsilitis, tooth infection, pneumonia, gonnorhea, or influenza. In addition to the backache, there are usually symptoms pointing to the causative condition.

The disappearance of the infection, by proper treatment, will cause the backache to subside. A rigid course of diet, baths, water treatments, etc., may be necessary. The infected tooth must receive proper attention, but the local treatment of the backache will also be necessary.

There are many other infections producing backache, as tuberculosis and typhoid fever. In tuberculosis, there is frequently a deformity produced. The treatment should be quiet rest on a fairly rigid bed, a nourishing diet of natural foods, avoidance of constipation, proper care of the skin by sun, air, friction, and cool sponge baths, plenty of fresh air, and sleep.

Backache resulting from typhoid fever is not associated with deformity, though the spine may be rigid and very tender. This, usually, is self-eliminative, but by proper upbuilding and local measures the backache will disappear more quickly.

Many backaches are due to a relaxation of the joints of the lower spine and hip bones. There may be a genuine arthritis develop in these joints as the result of rheumatic or other infections.

Long illness and surgical operations requiring long lying in bed may result in the relaxation of these joints. Some of these cases result from sleeping on very relaxed springs of the bed, on which the individual sleeps as in a hammock. Merely stiffening the springs, taking cool baths, and exercises will correct these cases many times. Sometimes if there is too much relaxation, strapping may be necessary for a while. Manipulation treatments are good in most of these cases.

Sudden twists and turns may result in backaches of the relaxed nature. Hot applications, probably the sitz bath, and more or less rest for a while, will take care of these cases.

Lumbago is a term frequently wrongly applied, as it is not a particularly common condition. True lumbago is a severe paroxysmal form of muscular rheumatism affecting the muscles of the loins and their tendinous attachments. One may be unable to twist or turn the back, or to rise to an erect position after stooping. Even the jar or motion of walking may bring great pain. Hot water applications and especially hot sitz baths followed by proper massage, together with a proper eliminative diet, and a correction of constipation, will usually be perfectly successful. Manipulative, electrical and vibratory treatment may also be used.

Backaches may also result from prostatic diseases or other abnormal pelvic conditions. These must be overcome by appropriate treatment.

Diseased conditions of the kidneys, also a very large abdomen or a prolapsus of the stomach or other abdominal organs may result in backache. A proper posture, diet, and general treatment together with the local treatment previously mentioned, will correct these backaches, though kidney diseases may require a very strict regimen, as given in the discussion of kidney diseases.

The backache of constipation will be corrected if the proper diet and exercise for this condition have been complied with sufficiently long to overcome the constipation.

By this you will see that the causes of backache are numerous, and, while local measures are of value in all instances, the underlying condition must always receive proper attention.

CATARRH

CATARRH, to the average individual, is a disease of the nose and throat. This is the most common form of the trouble, but catarrh can be found anywhere in the body where there is mucous membrane. Catarrh of the stomach and intestines is rather common.

But here we shall confine ourselves to catarrh of the respiratory tract, because catarrh of the nose, throat and bronchial tubes is the most prevalent kind. It is a kill-joy to him who hath it as well as to him who is forced to see and hear its manifestations.

The most interesting question—is catarrh curable?—will be answered first. It is curable. Children and young adults can rid themselves of it in a short time. Those who are of middle age find it more stubborn. Those past middle age find it even more difficult to vanquish. But catarrh can be cured in every instance, if the individual has a fair amount of vitality and will power, and if the trouble has not advanced so far that the mucous membrane is badly deteriorated. When the mucous membrane is ruined, there cannot be a complete cure, but even here the sufferer can be made comfortable in most instances. Fortunately, it takes many years to ruin the mucous membrane. Nearly all cases of catarrh are curable; the comparatively few, mostly among elderly individuals, who cannot fully recover can improve.

Why do people have catarrh? Because of eating and general living habits. Meats are usually served at every meal or at least once or twice daily; sugar is used in great quantities; rich desserts are used two to three times a day; and sometimes a big wedge of pie for breakfast in addition to fried potatoes, fried eggs, fried bacon, and hot biscuits or pancakes with syrup. The digestion may be good and the foods well absorbed but the body is unable to eliminate through the natural channels the excessive amount of waste produced by such gluttony. The result is catarrh.

Why are our results so satisfactory and lasting? Because

people are taught to live so as to have health, and not to return to their previous disease-building ways.

We may omit meat entirely or allow it once a day, with plenty of fruit two or three times a day, plenty of fresh vegetables once or twice a day, a reasonable amount of whole wheat bread and butter, also other plain foods, but we strictly limit the intake of sugars and starches which are, perhaps, the greatest feeders of catarrh, and for a time we interdict all desserts.

We urge patients to breathe and exercise more, and eat less, especially of the animal foods. We gradually increase one's walking and other exercising, and prescribe deep breathing exercises three times a day. We stop tea, coffee, cocoa, and chocolate, and substitute plain water and milk. We also stop eating between meals.

We convince patients that night air is the only air to be had at night and that foul air is as bad at night as in the day time. This results in proper ventilation.

It is well to add here the cheerful fact that in young individuals *Catarrhal Deafness* is generally curable. Those who have had catarrh for twenty or thirty years may have reached the stage where this affliction cannot be remedied, but the general rule is that catarrhal deafness in the young can be greatly improved or completely remedied. In elderly individuals the trouble can often be improved and the progress of the deafness stopped, but in cases of long standing where the ear structures have become tough and have degenerated the hearing does not improve.

It is both useless and foolish to take drugs for ordinary catarrh. The cause of the trouble is wrong mode of living, living contrary to natural laws, and drugs cannot remedy that. Nor can sprays and salves cure poor quality blood and disordered digestion. The remedy is to discard the bad habits and acquire good ones.

Catarrh is not a germ disease. It is a blood and digestive disease, that is, it is builded on poor quality of blood, and poor blood is caused principally by abnormal digestion plus poor elimination. Of course, bacteria are present by the million and the billion in catarrh. But the excessive number of bacteria is the *result* of the catarrh, not the cause.

The ordinary catarrh is the chronic form, but there is also acute catarrh, usually known as a common cold in the head, or technically as coryza. A common cold is actually a form of fever with mucous membrane irritation or inflammation. Most people take colds several times a year. Many graduate from the acute catarrh class into the chronic catarrh class. Through

the use of a moderate amount of will power it is easy to prevent and cure ordinary colds. The prevention may be given in a few lines: Keep the bowels normally active, breathe deeply; exercise freely enough to have good surface circulation and keep the blood from congesting in the chest and abdomen; drink sufficient water to flush the waste out of the body; eat less of the concentrated staple foods, such as bread, meat, potatoes, and sugar; eat more freely of the fresh fruits and the fresh vegetables; do not spoil the fruits by doping them with sugar, and do not ruin the cooked vegetables by draining off the juices in which they are stewed, and then adding starchy gravies.

The quickest, surest and best cold cure is this: Immediately when the individual feels that he is taking a cold he should clean out the intestinal tract; taking a piping hot bath until the perspiration comes freely; cool off gradually; drink all the water, warm or cold, that is desired; and miss a few meals until the stuffy catarrhal feeling is gone. If this is done as soon as one feels the cold coming, it is remarkably effective. If there is compromise and waiting before it is put into practice, it may not work at all quickly. Do it at once.

The evil effects of catarrh are numerous and serious. Catarrh causes deterioration of the mucous membrane; then the air is improperly prepared for the lungs, so that many irritants that should be excluded enter; irritation of the lungs ensues, which results in local deterioration of the lung structures. As a consequence the lungs are weakened and easily fall victims to pneumonia, tuberculosis, and bronchitis. Bronchitis may be called a form of catarrh. Also, the blood does not get its due amount of oxygen, and this adversely affects the entire body.

Catarrh and constipation, the two most common of human ills, go hand in hand. Sometimes catarrh helps to produce constipation, and very often constipation is one of the chief causes of catarrh. Most of the time these two ailments are allies, working together to shorten the life and to produce other discomforts and ills so long as life lasts. Neither one is a disease in the beginning, but merely a symptom showing that the waste elimination of the body is abnormal.

Catarrh is a disease that fills life with woe; it makes men and women inefficient; it decreases the earning capacity; it makes the sufferer, in many instances, both a public and a private nuisance, for it is very unpleasant, especially at the table, to have to associate with someone constantly being compelled to clear the throat; it leads to other diseases; it decreases the joy of living; and it often shortens life.

Why be handicapped by this trouble, which is rather easily overcome in the average case?

Inquiry is frequently made if an individual can through self-help rid himself of catarrh. That depends on the individual. If he is the kind who can take the truth from the printed page and persistently apply it, he can get well by himself. If he is the kind who has to be coached and encouraged to persist, then he will need expert supervision for a while. Unfortunately a large part of humanity belongs to the second class.

Summed up, here are some of the most important pointers in ridding the body of chronic catarrh:

1. Train the bowels to function satisfactorily at least once a day.

2. Breathe more deeply. Get the habit of having the chest out and the belly in. Have the bedroom well ventilated all night through all seasons.

3. Exercise every morning and every evening so as to keep good circulation in the limbs. Overcome that tendency to cold hands and feet.

4. For the purpose of maintaining normal surface circulation, spend at least five minutes every day giving the whole body, from neck to soles of feet, a thorough dry rubbing. Use the flesh brush or a coarse towel for this rubbing. Do this rubbing yourself even if you are worth a billion dollars and can afford to hire everything done for you. Also get the habit of "bellying in" several times a day to overcome the tendency of the blood to stagnate in the large abdominal vessels. Draw the abdominal wall in and up, as if you were going to pull it under the ribs.

5. If you are a victim of the domestic drugs—tea, coffee, tobacco, and alcohol—the sooner you quit them the better. Also avoid all medicines, whether patent or prescribed by physicians. Drugs will not help, but if they are freely used they will injure.

6. Water is the best beverage; it is the drink which most effectually helps to cleanse the blood. Coffee and tea both help to poison the blood.

7. Most important of all, learn to eat in a balanced way. Many food hints are scattered through this article, but we shall enumerate a few which need repetition: Eat more of the fresh fruits and the fresh vegetables, both cooked and raw. Eat less of such concentrated foods as potatoes, bread, sugars, and meats. If a vegetarian, eat moderately of the mature legumes (beans, peas, lentils, peanuts). Green peas and string beans are all right. Masticate all foods well and eat slowly. Take only two or three meals a day, and between meals nothing but water.

Remember that in ridding the body of catarrh, you are also toning it up so that it can with difficulty take any other disease.

Long ago Seneca said, "Man does not die: he kills himself." Catarrh is one of the things that assists mightily in this almost universal suicide. In the time of Seneca there were no magazines like *Physical Culture*. But to-day the truth is easily obtained. However, truth is worthless to those who do not heed it.

Catarrh in the young with fair vitality is totally curable. Those of middle age can nearly always overcome it, and those who cannot get entirely well can almost always get into such condition that the catarrh causes no trouble. Even many elderly individuals can overcome catarrh, but where there has been extensive structural degeneration a complete cure is out of the question.

Absorb the right knowledge, and then use enough will power to live your knowledge. Your will may be weak, but you can develop strength of will as well as strength of body.

CONSTIPATION

NUTRITION in its broadest sense embraces not only digestion and assimilation of food, but also the excretion of the end-products of metabolism, and the elimination of tissue waste. The body has but two channels by which building material may enter, the trachæ for air and the esophagus for food; there are four by which the unused and excess material, as well as waste substances are ejected—the lungs, skin, kidneys, and bowels—thus showing that Nature puts twice the stress upon the outgo that she places upon the intake.

While it is important that the purity and wholesomeness of the air and food supplied the body be ensured, of vastly greater importance is the efficient elimination of the constantly accumulating substances which are of no further use in the economy of the system. Food let alone will never hurt us, but waste left in the body will surely poison us. Elimination is a function that must be maintained at its highest perfection if normal health is expected. That efficient bowel elimination is an important factor in the prevention of disease and the maintenance of health cannot be disputed, as is evidenced by the fact that the relief of chronic constipation often brings about a cure of many chronic conditions.

Often have we seen nervous conditions relieved by correcting faulty bowel elimination, and skin diseases cleared up by the same method.

About eight out of ten cases of chronic disease give a history of constipation. This does not mean, however, that constipation is necessarily a cause of or even a symptom of the disease that is present, but simply that the bowels are weakened along with the other organs of the body. Many people, however, attribute their illness to their constipation, it becoming almost an obsession with them. It is the one symptom about which they worry and lament. "If I could only cure my constipation I would be well and happy," is a constantly recurring statement.

To realize the prevalence of constipation one has only to note the extent of the manufacture and sale of drugs and appliances for its treatment. I know of one comparatively small concern

that ships over a ton of saline laxative daily, besides millions of pills and pellets, and dozens of bottles of liquid medicine—all for constipation. Then think of the scores of other plants, some of large capacity, engaged in the same business. Besides, the many kinds of mineral waters advertised on the bill-boards—the sand, bran-bread, oils, and, last but not least, the multitude of enema appliances displayed in the corner drug-stores—all used for the same purpose. My contention is that the very means used to treat constipation but perpetuates the condition, and that the sooner it is looked upon as a pathological condition and not as a symptom, the sooner will a real cure be found and applied. When the fundamental basis of constipation is clearly understood, and treatment in accord with the physiology of the intestines employed, I believe there is no case, not due to organic causes, that cannot be relieved.

What causes constipation? Some cases are due to organic obstruction, such as peritoneal adhesions, pressure of tumors, displacement of organs, or contractures. With these we are not concerned in this article. They are in the field of the surgeon, and in most cases surgery alone can relieve.

There are a thousand and one causes of constipation mentioned in the books the recital of which would be tedious and useless. For the purposes of this article we would say that there are but two causes of constipation—enervation and muscular atonicity. All of the factors usually mentioned as causes of constipation are but exciting agents, producing either loss of nervous impulse or weakness of the muscles of the intestines.

The contents of the bowels are forced along by the contraction of the muscles in the walls of the intestines, and these are under control of nerves belonging to the sympathetic nervous system. In the normal intestine there is a peristaltic wave passing downwards at all times, whether the bowel contains waste substances or not, and the strength of which depends upon the amount of irritation the bowel contents produce on the nerve endings in the mucous membrane. That peristalsis is dependent upon nervous control is shown by the fact that narcotic drugs such as nicotine and cocaine paralyze the nerves and inhibit bowel action. There is another intestinal action of a rhythmic character which breaks the food contents of the bowel into segments. This depends more upon muscle sense or at least upon a local nerve plexus. The normal bowel will perform its function without any great stimulation. By overstimulation such as the average intestinal tract is subjected to, we can safely say that there is in time depletion of the nervous energies transmitted to the bowels

and that ultimately they fail to respond as they did when normal. We overstimulate the nerves of the intestines, first of all by eating too much food; by eating food, in the desire to prevent constipation, which directly acts as an irritant because of its rough character; by using drugs; and by the constant use of the enema. In short, anything that lessens the nervous power of the intestines and of the body as a whole will in time bring about constipation.

Our second cause, that of muscular weakness, is equally important and perhaps even more important than the nervous cause of constipation. The muscles in the walls of the intestines receive their nerve and blood supply from nerves and vessels found in the peritoneal investments. The blood vessels pass into and between the muscular coats of the intestines. Therefore any factor decreasing the blood supply will result in wasting and loss of tone in the muscles. As for instance, when the intestines are unduly distended with bulky food, with the gases from fermentation, with large colon flushings, with retained fecal matter, or when relaxed because of local paralysis or weakness, the walls are thinned and the muscles receive less blood, so that malnutrition results. Such muscles can no longer respond to nerve impulse, and hence the fallacy of trying to increase peristalsis by stimulation.

How many times per day should the bowels be emptied? In the normal intestine the bowels act whenever the sigmoid becomes filled with fecal matter, no matter how many meals have been eaten or the character of the food ingested. Remember, I say a normal intestine. Therefore if a person be eating little food, or of food with little waste, when digestion is so perfect that most of the food eaten is digested and assimilated, there may be very infrequent bowel evacuations, and the person still be in perfect health.

Some say the bowels should act three times per day, and if they do not, try to force them to do so by the use of enemas or laxative substances. We believe that the dangers of constipation are not due to the retention of feces in the sigmoid and rectum, as these are in a solid condition and naturally covered with a protective coating of mucus, but that the danger consists in absorption of poisonous substances higher up in the bowel where the contents are liquid.

We are decidedly against the injection of large amounts of warm water into the colon which is retained until the fecal masses are liquefied. This habit continued for a long time will

result in a decided autointoxication as it has been proved that there is great absorption of toxic substances when feces are liquid.

We believe a safe rule is to be sure that the bowels act once daily. However, if they skip a day occasionally and one is eating the right kind of food, there is no occasion to worry. When one is eating much meat and other foods of a toxic character, the more often they act the better.

The radical and lasting cure of constipation requires something more than a "take something" habit. Of course if you consider it only a symptom there is nothing else to do but continue with the "bowel ticklers" and be happy. The method we will describe never fails if it is carried out long enough, and there is no organic obstruction, and the bowels have not been injured beyond repair.

In the first place your tired, relaxed, distended intestines need a rest. You have stuffed them, calomelized and salined them, scoured, scraped and rinsed them, and it is quite time you let them alone. If you overwork mentally or physically and cannot do your work, you take a vacation and rest. So why not give your bowels a vacation? If you do you will have done more for them than you have ever done in your life.

How are you going to rest your bowels? By putting as little into them as possible for a few days. Suppose you first of all give them a final cleaning out by taking a large dose of some saline laxative or drinking a whole bottle of some laxative mineral water. Then say good-bye to all such things. Now the real rest begins. Take nothing into your alimentary tract except water and strained fruit juices, and of these you can take all that you care for, for a period of from three to seven days, as the need may be. If the first rest is not sufficient you can do it again at a later date.

During this resting period the bowels may or may not act. Never mind. By all means do not do anything to make them. Let them alone. They are resting. You have cleaned them out in the beginning and there is nothing in them now to hurt you.

After such a rest as we have described the bowels will in a sense have regained their youthful condition, and all that is needed is food that will nourish them and build them up to adult strength and vigor. The best food for this purpose is milk. There are two plans, either of which may be followed. You may take up your regular three meals per day plan or you may take the exclusive milk diet.

If the first plan is selected, proceed as follows: For breakfast have a well cooked cereal, one or two glasses of milk, and some

sweet fruit, such as dates, figs, raisins, prunes, or ripe bananas. If acid fruit is desired, leave out the cereal and use oranges, peaches, grapefruit, pears, apples, melons or plums with the milk.

For the second meal, if you care for a meal in the middle of the day, have one or two cooked vegetables, such as cauliflower, spinach, onions, potatoes, turnips or beets, a finely ground whole wheat bread and a bowl of vegetable soup.

For the evening meal have a vegetable salad, composed of any green vegetables that may be in season. A good combination is found in lettuce, tomato, onion, celery and cucumber. Leave out any that you cannot secure, or, if you cannot get any of them, make a salad of sliced raw cabbage and apples, with a sprinkling of ground nuts. At this meal have your fish, meat, eggs, beans, peas, or nuts, according to whether you are a meat eater or a vegetarian. You may have some bread if desired, and water or cereal coffee to drink. Fluid taken at meals rather helps digestion if you do not use it to wash the food down. I always make this rule: "Take no drink into your mouth while solid food is there." Vary your foods from meal to meal and take no more than three or four articles at a meal. Of course after your rest you should take your food in small amounts as you would when a fast is broken.

The second plan, which to my mind is the better, is as follows: On the first day after the rest period, take a glass of milk every hour. On the second day take a glass every half hour, or two glasses on the hour. Continue in this way for from three to six weeks as you have time for. If the amounts mentioned are too much, reduce the quantity somewhat, but always take as much as possible, up to six quarts daily.

In some cases there will be normal bowel actions right from the beginning, but as we can hardly expect intestines which have been for years below par to get into action in such a short time, it is often necessary to assist them a little. But here is where we may upset all that has been gained if we are not careful.

It is safe to assume that peristalsis is practically normal down to the sigmoid, and all that is necessary is a little help in removing the hardened feces in the rectum for a while, or until the rectal muscles have been toned up. For this purpose we recommend an enema consisting of cool water, and the smallest amount of this that will effect the purpose should be used. This often is only a teacupful. Again only a half pint. Never use over a pint, and then if the first pint is insufficient, use another. The water is not to be retained, but expelled immediately. Never use a large amount of water. The rectum and sigmoid will be dis-

tended and tone lost. Do not retain the water, or the feces will be softened and poisons absorbed.

Often if one waits a day the bowels will act naturally and continue to do so daily. A patient once asked me, "Why is it I have to take an enema every day?" I told him to skip one day and see what would happen. He never took an enema again, as it was not needed.

Even if this cold enema has to be used during the entire time the milk is taken, one need not despair, as it does not create a habit; and when a solid diet as described above is taken up there will be no more need for it.

What else can we do to help matters? An all-around system of exercise should be taken up so that every muscle in the body is put in tone. It is the all-around exercise that counts.

Another procedure, valuable because it allows the intestines to change position and helps to overcome prolapsus, is walking on all fours, or on the hands and knees.

In case of hemorrhoids the hot sitz bath should be used. This relaxes the tissues and the blood drains out of the veins. If the sphincter muscle is constricted, it may be dilated by means of the oiled fingers or a pneumatic dilator. Hard dilators should never be used.

The treatment so briefly described has proved the most successful in my chronic cases. There are of course many cases requiring constant professional attention, but in the average case without the presence of more serious disease, one may get rid of constipation if the method is followed out faithfully and persistently. Chronic constipation cannot be cured in a few days or weeks—or in some cases even months. Tissues are not repaired as we would repair an auto. Nature works slowly but surely. The older the person, or the longer the condition has been present, the longer will it take. Do not condemn the method because it does not succeed the first time. Repeat it. The principle is correct—it should be applied over and over again, if necessary.

When we learn how to feed, water, and exercise the body there will be no more constipation. Until that time we will have to resort to "cures." Select the "cure" least harmful to the body, and stay with it until well.

But laxatives and cathartics do not cure. Every single resort to their use, while giving temporary relief, can only result in an aggravation and perpetuation of the constipation. Even the internal bath, or enema, should be used only when absolutely necessary and not habitually.

COUGHS AND COLDS

IT would be no exaggeration to say that scores of people literally cough themselves into their graves. A cough is one of the first symptoms of a cold, and a cold neglected is one of the first symptoms that a coffin will soon be needed. Note that I say, "a cold neglected," for neither a cough nor a cold will necessarily kill unless wrongly treated or allowed to develop into a more serious malady.

The mystery of a cold has been inquired into and debated for ages. The term, "cold" is so used because we have always associated the ailment with cold weather and low degrees of temperature. As soon as we get away from this idea, will we find the way to prevent and relieve colds.

Only a short while ago we read the warning sent out by a medical official of the government in regards to the expected epidemic of colds and influenza, advising the people to put on their heavies earlier than usual and to eat plenty of nourishing food. Then follows advice in regards to fresh air and ventilation and cleanliness, all of which latter is fine, but we object to the first two points of advice, unless qualified to some extent.

I can recall the many colds I experienced as a youngster on the farm, notwithstanding the woolen underwear, woolen socks, and general building-up paraphernalia which enswathed me, and the heavy farmer's diet I engorged. To this might be added the closed windows and efforts made to keep the house warm and free from drafts. Latest reports show that the farmer, regardless of his opportunity for fresh air and exercise, is especially subject to respiratory diseases, such as colds, bronchitis, and pneumonia. That heavy clothing and heavy diet are important factors I firmly believe.

Just now the theory of the bacterial origin of colds holds supremacy. Colds are considered contagious. In another decade this belief will have gone the way of many other ideas that we doctors used to believe in. That there are plenty of bacteria in the discharges of the patient no one can deny, and a few of these may take up their habitat in the respiratory tract of some other poor unsuspecting individual who may subsequently

develop a cold, but that these are the fundamental cause of colds has been disproved over and over again. If bacteria caused colds every person in a church with a half dozen coughing members should come down in a few days with the same complaint. And the physician passing from patient to patient would not be spared. As a matter of fact, it is rarely that physicians acquire any so-called contagious disease, and they are notoriously careless of themselves in taking preventive steps —providing a comic case of the facts refuting the theory.

But, you may say, only those susceptible to the infecting organism will develop the cold. Quite true. That is exactly why Mr. Jones and Mrs. Brown are in the death notices. Their bodies proved to be good culture media for bacteria. But it was the filth encumbering their tissues and which the bacteria were endeavoring to consume that occasioned their untimely demise.

How then do colds develop? First and foremost, we believe, is the ingestion of more food material than the body can readily use. Most of us never fail to answer the call for meals, whether we need to be fed or not, and our none too good digestion, pushed to the limit, fails to take care of the food eaten; there is indigestion with fermentation and subsequent absorption of material that has no business in the blood and lymphatics, and which an already overburdened eliminative system fails to get rid of. In addition to unneeded food, think of all the substances we cram in, which are in no sense food, but are simply taken by way of entertainment—the sodas, ice-cream, cakes, alcohol (nearly demised), and denatured foods—all of these furnish the material which is afterwards eliminated during a cold.

Secondly, we are wont to cover our bodies with as much clothing as we are able to purchase, forgetting that man by nature is a naked animal, and that every piece of clothing applied is a factor in lessening the skin's function. Very few civilized people have normal skin. How can they have when one of the functions of the skin, that of heat regulation, is accomplished by the clothing worn? Covering the body with clothes takes away the need for warm blood at the surface and hence, with the exception perhaps of the uncovered face most of us have a chalky white, anemic skin, incapable of either eliminative function or heat regulation.

Thirdly the frequent scrubbing of the body with hot water and soap, thus removing the natural oil and injuring the delicate muscles of the skin, further serves to lessen skin function. Then, too, the sensibility of the nerve endings in the skin is lessened by the hot water soakings in which we indulge. This has been

scientifically demonstrated, the nerves being in a state of partial anesthesia. Any wash-woman will tell you that her hands "feel numb" after a day's washing. Such a skin is incapable of normal reaction and colds are the consequence.

Once for all let us get the "open pore" idea out of our minds. One does not "take cold" because the pores of the skin are open after a warm bath, nor because we have not finished with a cold bath to "close the pores." The pores have nothing to do with it—in fact, that should be about the best way to escape a cold—elimination being more active when they are open.

Give a state of the blood in which it is filled to a viscid state with waste material and a skin whose capillaries are incapable of reaction, and you have the conditions suitable for developing a cold. It does not require a colony of bacteria, but simply a lowering of the temperature of the surface of the body so that the blood is driven inwards to congest the capillaries of the mucous membrane of the respiratory and alimentary tracts, and the deed is done.

To understand the mechanism of a cold we must understand reflex action. Reflex action is dependent upon acute sensory nerve endings, intact sensory nerves, a functioning nerve center, and a capable motor nerve leading back to the walls of the capillaries in the skin. This mechanism being in working order when cold air or cold water comes in contact with the skin there is first a temporary contraction of the capillaries and the blood is sent inward, but soon reaction begins and the blood returns to the surface, reddening the skin. This last action is the permanent one and the surface vessels are congested and the internal vessels are anemic. If hot water or hot air is applied to the surface there is first a congestion of the capillaries of the skin, lasting as long as the heat is applied and secondarily an anemia of the skin and a congestion of the internal vessels including the capillaries of the mucous membranes, which is the first step in inflammation. This is all in accord with Newton's law, "Action and reaction are equal and opposite in direction."

But suppose there is a disturbance in the reactive mechanism, what will happen? Instead of the blood returning to the surface after being driven inward by the cold, it remains in the capillaries of the mucous membrane, congesting them and bringing forth all the phenomena of inflammation. The viscid blood cannot circulate. Soon the liquid elements of the blood pass through the capillary wall, and the first stage of a cold is in process. This is a watery discharge soon followed by the more solid elements,

and soon all of the catarrhal symptoms are in progress. Fever arises, which is a more rapid oxygenation of the material in the blood stream and in the tissues, and is a help in more quickly ridding the body of the materials clogging the vessels. As the excretions collect in the larynx a cough is produced, which is Nature's way of expelling the material. A cough is therefore one of the first signs that elimination has begun.

Under normal circumstances the material eliminated from the mucous membranes during a cold would be eliminated from the body through the lungs, bowels, kidneys and skin. It is therefore only when any of these are incapable of performing their work, that the mucous membranes become eliminating organs.

A cold is usually one of the first ways in which the body tries to relieve itself of an overabundance of unused material. It is in fact a curative process and the best the body can do under the circumstances. All of the symptoms of a cold are the local phenomena of vital activity, the sum total of the protective agencies, if you will, of the body.

In many instances a cold may be aborted by some measure which stimulates the circulation of blood to the surface of the body, such as a hot bath of from fifteen to twenty minutes followed by a brisk rubbing with a rough towel which has been wrung out in cold water, and finally by a good night's sleep.

I am also in favor of the fasting and hot water treatment of a cold. My personal practice is to stop all food until the acute symptoms of the cold have disappeared, and usually for a day longer to make sure. By this I mean that absolutely no food is eaten as long as there is fever or a very great discharge from the mucous membranes. This may be only for a day or it may be seven days, as needed. One loses appetite with a cold, as well as the senses of smell and taste, and these are the best guides as to whether food is needed or not. As I have said elsewhere, it is doubtful if any digestion whatever takes place when one has fever.

I know people are still harping about, "Stuffing a cold and starving a fever," notwithstanding the fact that it has been pretty well established that whoever said this really meant that if you overfeed yourself when you have a cold, you will soon have a fever and will then have to starve yourself to get rid of it. There is really no difference between a cold and a fever —both are toxic conditions, and food eaten under such circumstances is but adding poison to poison.

Clean out the alimentary tract as quickly as possible and then

keep food out of it. A saline laxative or any of the saline waters may be used. If this is not desired, drink large quantities of water and use the enema daily.

The more water taken internally the better; drink a glass every half hour. Hot water flavored with lemon, orange or pineapple juice, will be found most palatable, but as much cold water may be taken as desired.

A person with a well developed cold, especially when there is fever, should be in bed. Sleep and rest are the great restorers. A person of great vital power can often go out for a brisk walk and come back free from his cold. Vigorous exercise, such as the use of dumb-bells, throwing a medicine-ball, floor exercises, and running until one is in a thorough perspiration, followed by a hot and then a cold shower is often effective, if one is strong enough.

As stated before, a bath may abort a cold. It is equally as efficient during the progress of the cold. Get into a tub of hot water for from fifteen to twenty minutes, drinking freely of hot water while in the bath. You should then take a cold sponge bath or shower the body with cold water and rub briskly with a rough towel; then wrap up in a blanket in bed. Sweating will soon follow. In some cases a bath of five minutes' duration will suffice. Remember that the cold sponge following the warm bath is essential. After all of these procedures the body must be quickly covered and kept warm to prevent a counter action.

The distressing cough may often be relieved by the sipping of hot water in which the juice of a lemon and a little honey has been added. A hot compress applied over the larynx for a time and then followed by a cold pack will also relieve. The inhalation of vapor impregnated with tincture of benzoin is a very efficient means of controlling a cough when other means have failed. If there is very great weakness and the cough is wearing out the patient by preventing sleep, it should be controlled by all means, even though it is an eliminative effort. If all other measures are being used for removing the cause of the cold, one may be forgiven for transgressing a law of Nature in this respect. Any other narcotic cough remedy, and also the ordinary "cough drops" may be used. We might also mention licorice, which is a harmless as well as efficient and pleasant remedy for a cough.

The simplicity of such treatment is just the reason why it is not more commonly used. Few people have the strength of will to deny themselves the things that are making them sick, or to withstand a little pain while Nature is adjusting matters within their bodies. They would rather take a little dope to

suppress the pain and other symptoms. Three fourths of all drug treatment is due to the fact that the people want it. I know of scores of physicians who employ physiological treatment when themselves and families are ill, but who would have mighty little practice left if they attempted to use it on their outside patients. Such is human nature.

The best time to go into active training to prevent winter colds is during the summer and fall. It is not too late even when winter arrives, but it will be more of a hardship and there may be more backsliding.

As pure blood is the basis of health, attention must first be paid to active elimination. One must not allow himself to become constipated. Whereas you may have been drinking a few swallows of water a day, you should begin to drink from six to eight glasses. This may be either hot or cold.

I believe the possessor of freely circulating blood will be free from colds. Get the blood to the surface of the body. Begin in warm weather and take sun and air baths. If you cannot take the sun baths you can take air baths in the privacy of your room. If you feel chilly take active exercise or rub the body vigorously with the bare hands. Five minutes night and morning will give your skin an airing that will soon put the glow of health on it.

If you are obliged to work indoors in superheated offices do not wear heavy woolen underwear and heavy suits and dresses. The temperature of most of our houses and offices is that of summer. When compelled to go out in the cold put on heavier outer clothing and remove this when going indoors.

Get acquainted with the delights of cold water. If you have been taking cool sprays and cold rubs during the summer continue them during the winter. The members of the "Polar Bear" club never have colds. The idea that one cannot keep clean with cold water is a fallacy. Some people never have any warm water to bathe in; they have not the money to buy fuel to heat it, but manage to keep themselves clean. It is not necessary or advisable to plunge yourself into a tub of cold water. I most heartily condemn the so-called "morning cold tub." This is a shock that only the hardy can withstand and is too much like burning the candle at both ends. All that is necessary is a cold wet toweling, one part at a time, followed by a brisk rubbing with the bare hands or a towel. A matter of five minutes will complete the entire operation. Of course reason and judgment should be used in gradually becoming accustomed to the cold water.

It is remarkable what a difference a few weeks of air, light and cold water makes in the skin. As the structure of the skin improves and becomes more normal, there cannot fail to be better and increased elimination.

The diet question is where most of us fall down. In the idea that we must eat more food and heavier food during the cold months to keep us warm or to supply more calories, we stuff ourselves to the limit.

My advice is to eat no more than will satisfy the appetite. If you are obliged to be out of doors engaged in active exercise you will undoubtedly have a better appetite and will require more food, but the indoor worker at sedentary labor will make a mistake if he eats as much as his more active brother, although I know of many inactive individuals who eat twice and three times as much as some men consume while doing hard labor. Thus is provided the fuel for the conflagration known as a cold.

I don't care what you eat so long as you have a small amount of fresh fruit or raw vegetables in your diet. Proteins, fats and carbohydrates usually take care of themselves in the average person's diet, but the foods containing alkaline forming substances are lacking. Lettuce, raw cabbage, raw turnips, celery, raw beets, raw carrots, onions, oranges, soaked raw prunes, grapefruit, apples and pears make up a list one or more of which may be found in any community, and which will do more towards preventing illness than any medicine.

If you will also take from one to two quarts of milk daily it will be conducive to good circulation and a feeling of well being. A half day or a few days occasionally on the milk diet during the winter will often ward off colds when threatened. A diet of milk and fruit may also be used for the same purpose.

Some time during the day take a walk, if for only from fifteen to thirty minutes' duration, during which breathe the air as deeply as possible. Don't forget the open windows at night—and keep the sleeping porch in use if you have one.

I know there are some who will try out the foregoing method and develop a cold forthwith. That is to be expected. Most of us are living in an encumbered, overstimulated, rickety old body which bestirs itself and tries to restore its health equilibrium when given half a chance, and the scouring, airing, watering, resting and feeding we have described is just what it has been waiting for—it tries to get well through a house cleaning. But we occasionally have a grudge against it, and instead of helping the body get well—buy it a coffin instead. The body tries to be

as normal a body as possible, according to its environment. The more artificially we live the more diseased and abnormal will we be. The more we surround the body with a natural environment, the more normally will the body functionate and the sooner will there be no disease.

DIABETES

THE theory of the cause and nature of diabetes has for years shifted as have the sands of the sea, and theories are still fluctuating somewhat from one to another, as the ebb and flow of the tide. It has been regarded as a disease of the pancreas, of the muscles, of the nervous system, of the kidneys. It has been considered as a metabolic and nutritional disturbance, and as a form of autotoxemia and acidosis.

But the real trouble is that the system has been so overburdened with an excess of all classes of foods, and particularly of meats, that it cannot properly assimilate any class of food. It is just this condition of the overtaxed system that makes it so eager for, and so responsive to, a dietetic and health regimen which allows the toxins to be expelled, reduced and neutralized. And we have demonstrated over and over again that the fast, fruit diet, and the milk diet, together with an abundance of exercise, will correct many of these cases. We have also found that most of these cases will require as great care in the taking of meat as of many other usually restricted articles of food.

The most characteristic symptom of diabetes is the discharge of sugar in the urine together with a large amount of urine. The amount excreted daily may run into the gallons and usually there is an intense thirst. There is usually sugar in the blood also, that is, in larger amounts than normal. The appetite very frequently becomes as intense as the thirst. The skin becomes dry and harsh, and there is frequently an inability to sleep. Boils are frequently developed on the skin and an injury may easily result in a gangrene of the part.

Usually a cure can be brought about only by drastic constitutional measures, and even these measures will many times be able only to check the progress, or to lessen the severity of the disease and its symptoms, without bringing about a cure.

Mr. H. M. Straus of Ohio was one of the fortunate ones in bringing about a cure from this grave constitutional disease. This patient weighed about 250 pounds, which was 75 pounds too much. Usually the diabetic patient will in time become emaciated, but this is not always the case.

Mr. Straus had all the characteristic symptoms, except that the boils had only begun to develop. He was placed on a "fast" of orange juice—being allowed four to five oranges a day. This regimen was continued for three weeks. All of the time, he was taking long walks and bending and twisting body movements to aid in the reduction of fat.

After the first week, the discharge of sugar had absolutely stopped. Thirst was no longer present. The amount of urine excreted was normal. The skin showed less dryness and harshness. The itching had been corrected and the boils had entirely cleared up. The patient lost forty pounds, and after starting on the fruit and vegetable diet, he kept on losing until he had lost fifty pounds.

After breaking the fast, a greater variety of fruits is allowed, but the very sweet fruits such as dates, figs, and raisins should still be excluded from the diet. All vegetables are allowed except sweet potatoes, and white potatoes should be taken in small amounts and not oftener than once a day or once in two days. Oatmeal, macaroni, sugar, and candies are all kept from the patient. The diet should be largely fruits of the acid or subacid type, green leafy and salad vegetables, milk in as large amounts as desired, but preferably skimmed, and a small amount of whole grain products. Eggs, fish, and fowl, also small game, may be used in small amounts two or three times a week.

Always, one must exercise considerably. If there is any serious organic involvement, nothing is better than walking, and one should breathe deeply during the walk. There must be an equivalent to outdoor air in the room at most times. It would be well to attempt to take nude air and friction baths after the skin activity had been improved so that it was no longer dry and subject to boils.

We have had other cases in considerable numbers that have brought about a satisfactory reduction of all the symptoms and what may be considered practically as cures. But bear in mind that one cannot compromise too much. The disease is grave and requires strict adherence to a dietetic and general health regimen.

The younger the patient at the time of development of diabetes and the more severe the early symptoms the less favorable is the prospect for cure, but we have had cures in youths of sixteen. This shows what can be done by the Physical Culture treatment of this disease.

GALL STONES

THERE was a time, and within the memory of very young school boys at that, when a case of chronic digestive trouble that didn't sooner or later mean parting with the appendix was an exceptionally rare thing.

The advantages of this procedure having been proved by bitter experience to be decidedly overestimated, the surgeons switched their field of operations from appendectomies to pyloric and duodenal ulcer. Operations for these ailments now outnumber appendectomies.

At a very conservative estimate the number of these operations performed in the United States alone will average fifty thousand a year.

Not only are these operations attended with grave shock and serious after results, but their very purpose is to destroy Nature's method and mechanism. For the ultimate outcome is a constriction of this opening made by the surgeons through the subsequent contraction of the scar tissue.

In thirty years' close study of the abdominal lesions I may say here that I have not seen more than five cases of duodenal ulcer. Dr. William H. Porter, Professor Emeritus in Pathology at the Post Graduate Medical School and Hospital, New York, more than corroborates this experience. For, in three thousand and five hundred cadavers, in which he made a thorough dissection, he never saw one case that might indubitably classed as duodenal ulcer.

And yet operations for the correction of this disease are one of the most common procedures in major surgery to-day.

Ulceration of that portion of the digestive tract, known as the pylorus—the junction of the duodenal part of the intestines and the stomach—is fairly common, however. It occurs in fully five per cent of all stomach cases.

Failure to exactly locate the ulcer, however, makes no difference in rational constructive treatment.

In the clinic almost daily one sees cases where the diagnosis and X-ray reading have been made of duodenal ulcer. Yet,

upon relieving the sag behind the pylorus from a displaced and twisted stomach, this is shown to be nothing more than a local congestion.

In the treatment of stomach, pyloric or duodenal ulcer, water, scientifically administered, plays a tremendously important part.

However, I have never in any textbook been able to find reference to treatment by *OSMOSIS*, as I call this water cure, yet this is so uniform in its results, and so palpable and readily understood that it is almost inconceivable that the medical profession has ignored it.

Here is the principle of osmosis, simply stated: When two fluids are separated from each other by an animal membrane, there is a movement from the heavier to the lighter, to equalize their density or weight. This causes a movement of fluid through the membrane which exerts a most decided effect upon the tissues.

A daily illustration of this is in the washed-out, bleached, shriveled appearance of the hands of the washerwoman immersed in the water. The heavier fluid, the blood, is separated from the lighter, the water, by an animal membrane, the skin—and the blood fluid is drained from the vessels and cellular elements of the hands into the water.

By the osmotic treatment, congestive in inflammatory changes become corrected or benign. In the absence of blood and fluids, the bacteria in ulcerated conditions become inactive, and may even die.

In all my experience, I have never seen a case of ulcer above the large bowels (not barring the ulceration of Peyer's Glands in typhoid fever), that was not rendered practically benign, through osmosis. And the results are almost immediate.

Here is a typical case and its method of treatment in detail: On February 18, 1917, Spencer Wicks consulted me for an intense gastric condition that had been variously diagnosed as appendicitis, acute intestinal catarrh, hyperacidity, etc. The point of intense tenderness was located in the pylorus, radiating to the left shoulder. Decomposed blood was found in the stool, while lavage of the stomach showed approximately three ounces of fresh blood, and some blood of coffee-grounds appearance. The rugged outline of the ulcer could be easily felt. There was considerable free hydrochloric acid in the test meal.

The treatment consisted of thorough lavage with a bland sal solution, and complete contraction of the stomach to between the fifth and seventh ribs. A glass of water every hour was the only diet. For seventy-two hours this regular water-drinking was

kept up during waking hours. Further, he was not permitted to sleep more than three hours without water.

Within a half hour after treatment, this patient began to experience relief from pain and distention.

This osmotic treatment continued for five days, after which the patient was discharged as cured. It is interesting to note that, even after a lapse of five years, there has never been any return of the condition.

With the contraction of the stomach to normal dimensions, the pylorus is obliterated, and we have practically no retardation of the water into the duodenum. So that, with a contracted stomach, it is only a matter of a few moments to obtain active osmosis in the duodenum.

During the early stages of treatment for any ulcerative condition, the question of feeding is of minor importance. Indeed, a complete fast for a couple of days is a great advantage.

After forty-eight hours of osmotic immersion, diluted milk may be given in small amounts. The diets can be increased rapidly from this time on, with little or no apprehension of any unfavorable reaction.

In patients who are plethoric, or even fairly well nourished, a seventy-two hour fast is always advisable, to begin treatment.

Where the induration (the roughened ulcer surfaces) is very pronounced, or of long standing, osmotic treatment should be given every second day, and continued for several weeks.

Another frequent cause for major surgery of the abdomen is a crop of gall stones. The pain of true gall stone colic, produced usually by the passage of a gall stone through the gall duct into the intestine, is one of the most excruciating experiences to which a suffering human can be subjected. No one who has ever had this experience is likely to forget it in a hurry.

Yet, practically five per cent of all people in the United States have, to a greater or lesser degree, some defect in the biliary secretions. Fortunately, the greater majority of us go through life in ignorance of these defects. For, not until the duct that runs from the gall bladder into the upper duodenum is blocked or irritated by these concretions do we suffer any distress from them. When the stones finally reach the intestines, even when they are of exceptional size, their action is comparatively benign, and they ultimately pass away in the stool.

Right here, I wish to emphasize one fact that permits of no dispute, either from the standpoint of anatomy, or the standpoint of logic. It is this: any stone that can get into the biliary duct is not too big to be forced out of the same duct.

Bear in mind the additional fact that if a stone can get into the duct by the mild expressive contraction and force of the gall bladder, it certainly can go through that duct when sufficient additional force is put behind it.

Nature has been very considerate in the development of many of her structures and processes.

Behind the stone is the gall bladder, more or less filled with fluid bile, and below and behind the gall bladder are semi-fluid tissues, capable of exerting additional hydraulic pressure.

We can dilate the bile duct just as the canal in childbirth is dilated, with practical obliteration of said canal through the hydraulic pressure of the fluids within the membranes.

Under proper manipulation, I have repeatedly heard and felt the popping of the stone into the intestines, which showed in the stool to be approximately the dimensions of a large kernel of corn. This proved that the stone had, with the mild pressure of a contracting gall bladder, been forced through the duct to a point quite near the intestinal opening.

The muscular coat of the bile duct offers but little resistance to dilatation. However, the muscular tissue of the pylorus offers practically unsurmountable resistance when in intense spasm. Therefore, it is imperative in removal of the gall stones that the pylorus be obliterated. With the stomach fully contracted to between the fifth and seventh ribs, the pylorus is not evident, and expressions of stones of quite large dimensions is a comparatively simple procedure.

It should naturally be borne in mind that there must be no direct pressure upon the stones or the gall bladder, because of the danger of injuring the bladder or the duct. The pressure must be indirect, with the purpose of obtaining general hydraulic pressure within the gall bladder itself, and of putting the bladder under the greatest pressure.

Hydraulic pressure will always be exerted in the direction of least resistance. The muscular coats of the gall bladder are much more resistant than those of the duct. Therefore, the duct will dilate in preference to the bladder.

Here is the technique for removing impacted gall stones:

After flexing the knees, with the patient in the prone position, I begin at the lowest possible part of the abdomen. Standing to the right side of the patient, I gather up with my right hand all the gut and omentum the hand can grasp. With my left hand I gather the contents, and press them from the left side of the abdomen to the right, forcing the tissues laterally, using a pressure of from seventy to one hundred pounds.

Gradually I force both hands upward, carrying before me all the abdominal contents I can, and going as deeply into the abdomen as possible.

As I approach the gall bladder my hands will overlap, with the right thumb reinforced with the left thumb. Then I exert the pressure upon the gall bladder. Five minutes of this manipulation will exhaust both the manipulator and the patient, and rest is advisable.

If, after three or four attempts, the gurgling of the bile into the intestines following the expression of the stone or stones, is not secured, I look for further contraction of the stomach. Expression of the stones is sometimes difficult. But perseverance will be rewarded, and the physician will soon look upon gall stone infection as a simple condition, readily correctable. When, after persistent efforts this method fails, there has, in all probability, been a mistaken diagnosis, and instead of gall stones, we may have to deal with a case of cancer of the pylorus.

The point I desire to emphasize, however, in connection with the life and death matter of major surgical treatment, is that surgery is perhaps the least effective method of dealing with many conditions now deemed purely surgical.

There are, as I have tried to make clear, other methods of correcting these conditions, which carry with them none of the dangers of a laparotomy, or possibility of death from shock, hemorrhage or the anesthetic, none of the lingering weeks or months of convalescence, and the years of subsequent discomfort from adhesions or the painful contraction of scar tissue.

These methods are purely natural, fraught with no possibility of danger, and carry with them no insidious menace to life and the future normal functioning of the tissues.

HEART DISEASE

HEART diseases may be classified as functional and organic. Functional disturbances are mostly symptoms, due to causes outside of the heart, and not due to structural changes in the tissues of the heart. These will not be considered in the present article.

Organic diseases of the heart are those conditions which are due to, or in which there is a change in the tissues or structure of the heart. These may again be classified as acute and chronic. As inflammation is a chief phenomenon they are also called inflammations of the heart. Thus if the pericardium or covering of the heart is affected we have acute or chronic pericarditis; if it is the muscular wall, it is called acute or chronic myocarditis; if it is the lining of the heart it is acute or chronic endocarditis, the last named being the most common condition.

Causes of Heart Disease

Any factor that tends to produce an accumulation of poisons in the body is a potential cause of heart disease. It is a well-known fact that organic heart disease is increasing in frequency. As epidemics of acute infectious diseases decrease, heart disease increases. That there is a connection between the two facts is the belief of many hygienists and sanitarians. At least the matter is under suspicion. It is thought by some that the suppression of acute diseases by means of drugs and serums is responsible for the retention of poisons in the system and this is followed by disease of the heart and other vital organs. At any rate heart disease follows such diseases as rheumatism, diphtheria, scarlet fever, tonsillitis, and venereal disease very frequently, and indeed the patient in most cases will date the beginning of the trouble from an acute ailment. If this is so, the best way to avoid heart disease is to avoid acute sickness.

Among other causes are bad teeth, abscesses, ulcerations and other sources of pus and toxins in the body; overeating and the eating of improper foods, alcohol, tobacco, and the habitual use of drugs; sexual excesses; exposure to extreme cold and

muscular fatigue; the hurry and worry incident to an active business life.

It is the well fed, active, pleasure-loving, hard-working business man, perhaps taking part in politics and public affairs, smoking and drinking moderately, in fact the all-round successful man, that is too often attacked.

Another potent cause of heart disease is excessively hard work in youth. Growing boys and girls often have to follow occupations which entail work that is too heavy for their undeveloped bodies, and the heart breaks down under the strain. Many a youth enters upon his career physically untrained, and a bad heart in middle life is the result.

We might also mention the fact that heart trouble is not uncommon in retired athletes, and this is due to the fact that they have developed a large fibrous heart during their athletic training, and upon settling down to a life of ease the heart muscle atrophies and is replaced with fat. Then some day, thinking they still have their old-time strength, they engage in a baseball game or other strenuous exercise, develop dilatation of the heart and die. No one should engage in athletics or train for athletics unless he first goes through a course of eliminative treatment and frees himself from disease, nor should a person retire from athletics suddenly, without adopting and continuing some other from of exercise to keep the muscles of the body in condition. In short, to avoid heart trouble one must live a clean, careful, active life.

What Happens in the Heart

The valves of the heart are subject to much wear and tear in the circulation of the blood. As these are covered by the same membrane—the endocardium—that lines the cavities of the heart, they are especially subject, because of their position and function, to any inflammation affecting this membrane. It is somewhat similar to a pump valve which always wears out before other parts of the pump and has to be replaced. In the case of man, however, there can be no replacement of the worn-out valve.

When an infective poison carried along in the blood-stream reaches the heart, and the membrane becomes diseased, the tissues are softened and disintegrated, and particles of the valve break off or are absorbed, or the valve adheres to the wall of the cavity, or excrescences form on the margins of the valve, or the heart cavity dilates, any of which prevents the closing of the

valve at the proper time and allows blood to pass backward when it should be going forward, or prevents its onward flow.

A certain amount of blood must pass through the heart and be sent to the tissues of the body at every beat, but if one of the valves, most commonly that on the left side of the heart, allows some of the blood to pass backward or prevents its going forward, there is a disturbance of circulation, and until the equilibrium is reestablished the patient will suffer from the group of symptoms common to heart disease.

In other words, an organic change has taken place in the heart, and we have the condition known as—organic heart disease, valvular disease of the heart, valvular regurgitation, insufficiency, incompetency, stenosis, valvular leakage, etc. And since the physician can hear the "swish" of the blood as it regurgitates, it is said that the patient has a "murmur" in his heart.

The valve can never be restored to normal, but what does happen is that the muscular walls of the heart become stronger and thicker, so that the same amount of blood is pumped as before. As long as this condition lasts we say that there is *compensation,* and if this is maintained by the patient taking care of himself and with proper treatment, he will get along as well as before. But if the heart muscle weakens or the cavities dilate, compensation is lost and the symptoms return, or the patient dies.

Symptoms of Heart Trouble

Many persons think they have heart trouble when they are only suffering from a dilated stomach or flatulency due to the fermentation or constipation. If the heart defect is perfectly compensated there are no symptoms at all except perhaps a slight shortness of breath upon exertion. In such cases only a physical examination will disclose the trouble, and many physicians to save the patient needless fear and worry, will not inform their patients of the fact, if they happen to be following a suitable occupation or are inclined to worry.

The patient may develop a slight cough and there may be slight streaks of blood in the sputum, causing him to seek treatment for lung or bronchial trouble. The cough is due to congestion in the vessels of the lungs and bronchi because the blood is backing up.

The patient may seek treatment for indigestion or other stomach trouble, this again being due to congestion. In fact,

every organ in the body may present symptoms which are all due to the heart condition. There will be shortness of breath upon climbing stairs, or when walking rapidly or running; at first the pulse is strong and rapid, but later it becomes rapid, weak and irregular, the patient feeling the "thump" of the heart against the chest wall; the lips and cheeks are blue-red in color or may be pale; the hands and feet are cold; headache is common; ringing in the ears, vertigo and insomnia, sharp, shooting pains or an aching sensation in the region of the heart or extending to the shoulder and down the arm; at times there is palpitation and strange fears as of impending death; weight may be lost and great weakness come on; during the later stages as the compensation fails still more, there will be swelling of the limbs and abdomen, or dropsy. As said before, there may be symptoms referable to any organ in the body. The reader must not be alarmed if he has any of the above symptoms and rush off to the doctor thinking he has heart trouble, for any of them may be present with no fault in the heart. The one definite point in the diagnosis is the discovery of the lesion by physical examination, and even in this many a doctor has made a wrong diagnosis.

There are many objective symptoms only discovered by the physician making an examination. There should be no time lost in having an examination made if there is any trouble suspected.

Treatment

Having discovered that you have heart disease, what must you do to get well? It all depends upon how far the disease has advanced and whether your heart is compensating or not. If you present no particular symptoms except enough to let you know that the trouble is there and you are still up and about and able to work, all that is necessary is to give up your bad habits and regulate your life in such manner that all unnecessary strain will be taken off the heart. You must not worry; you must avoid constipation; you must eat food that agrees with you, that is easy of digestion and that introduces a minimum of toxic substances into your system; you must not drink alcoholic liquors or use tobacco or drugs; you must not overwork or engage in enterprises or occupations too strenuous for you; you must get a maximum amount of rest and sleep; you must adopt some system of exercise that will use every muscle in your body every

day and which at the same time will not put strain on the heart; you must, in short, take good care of yourself.

But suppose that you have serious symptoms or your heart has lost its compensation or such loss is threatened? Then you must adopt a more definite course of treatment.

1 Do not worry one minute about your condition. The best thing that you can do is to try to get well. Place yourself in as cheerful surroundings as possible. Avoid grouchy, sour-faced relatives and friends who take delight in retailing accounts of people who have died of heart trouble, and who advise you to take this and that treatment. Select a pleasant, sunny room, and have a capable nurse or a sensible friend or relative to wait upon you, and then having decided that you wish to live, let nothing interfere with your struggle for health.

2. Of course you have stopped all of your bad habits. You must also have removed all possible causes of your illness. All sources of infection must have been taken care of—bad teeth removed or treated, abscesses drained and ulcerations cleaned and healed, and acute complaints remedied. You must set out to make your body as clean inside and out as it is possible to make it. This means thorough elimination through skin, bowels, kidneys and lungs.

3 The heart must have a chance to rest and "catch up," as it were, with its work, and this applies especially if there is dropsy. Therefore you must rest in bed, flat on your back, for a period depending upon your condition. If there is dropsy you must stay in bed until the swelling is gone, and even if there is none, you must precede your treatment with a period of rest in bed. During this rest period you must do nothing for yourself, and while the dropsy lasts not even raise your head from the pillow.

4. The quickest and safest way to reduce the fluid in the system, if you have dropsy, and also to take the load off the heart is by fasting. We should never be afraid to fast the heart patient. We do not mean a long fast, but a short preliminary fast, or a succession of short fasts. You must fast for a few days, say two or three, and then eat a little, and then fast some more, and in this way you will gain confidence in yourself, and can fast until the dropsy is gone. Very little liquid, or none at all for a time, should be taken while the dropsy lasts. If there is thirst a very little water or orange juice may be sipped. Even after the dropsy is gone, fluids must be restricted somewhat, as they raise the volume of the blood and hence increase the work of the heart. Fasting is always the emergency treatment whenever dropsy appears.

5. The bowels must be moved by the use of a daily enema. One is often tempted to use saline cathartics with the idea of also removing the water from the system, but this is a dangerous procedure as we must not forget that dropsy is a conservative condition and the best the system can do under the circumstances to relieve the heart of work. The sudden withdrawal of the water before the vessels can accustom themselves to the change in pressure may cause sudden heart failure. The best plan is to wait until the water is reabsorbed into the capillaries and eliminated in a natural manner, even though a longer time is required.

6. The room must be well ventilated. This does not mean that it must be kept cold and uncomfortable. You must breathe as freely and deeply as is comfortably possible, but avoid forced breathing.

7. A daily sponge bath must be given, with water at a temperature of the body or a little warmer, during the time you are in bed. But as you get up and about, the temperature should be gradually lowered to 75 or 80 degrees F. Chilling must be avoided. There must always be reaction after the bath, otherwise don't take it. The use of the bath is for cleanliness and skin elimination only and must never be used as a stimulant. Cold showers, douches and plunges must be avoided.

8. Clothing that will *keep you warm* should be used at all times. Cold contracts the surface capillaries and thus increases the work of the heart. The clothing must be light in weight but effective in heat-retaining qualities. Use woolen fabrics.

9. "What may I eat?" will be your next question. This is important and must be carefully attended to, as in connection with this one factor great harm is often done. In this we find the reason why so many fail to recover. It is largely a matter of quantity.

As said before, liquids must be restricted. Nothing besides water, fruit juices, thin soups, or milk should be allowed for the liquid part of the diet, and this should be taken three times per day, eight hours apart, and always between meals. Taken in this way there is less tendency for the fluid to remain in the system. Not over one or two glasses should be taken at a time. If milk is taken less solid food should be eaten.

The solid or semisolid food should be taken in three or four small meals, and should consist of food that is relished, well masticated and easily digested, and should be tastefully prepared. The amount must be limited. It is better to be hungry

than to get too much food. "What you don't eat won't hurt you."

The following articles are suitable: Unpolished rice, boiled or baked; baked potato or squash; custard and fruit gelatin; stewed carrots, beets and cauliflower; spinach, beet greens, kale and chard; soups made from chopped and strained vegetables; salads of lettuce, celery and tomato; toast or zwieback; prepared cereals, farina, cream of wheat; baked or raw ripe apples, dried or raw peaches, apricots and prunes; and a small amount of fish occasionally. Red meats, fowl and game stimulate too much and had best be left alone, or reserved until the patient is up and around.

One need not worry about combinations. The idea is to eat small amounts, using only one or two articles at a meal, and making the variety from meal to meal, rather than taking many things at each meal and thus causing fermentation in the stomach and intestines. When the patient gets up the amount of food can be gradually increased, but at the first sign of a return of symptoms, the thing to do is to fast or reduce the food intake.

If not more than two quarts are taken daily, one glass every two hours, during a period of sixteen hours, the exclusive milk diet will be found superior to any other diet in a case of heart trouble. But absolutely no other food should be eaten while taking this.

In cases where fasting seems inadvisable, a half glass of milk every two hours may be used. Or if a still more limited diet is indicated the milk may be diluted with water. Skimmed milk, buttermilk, sumik or fruit juices may all be used as an exclusive diet in the same manner when more palatable.

10. Formerly the heart patient was warned not to exercise, and the enforced inactivity usually resulted in fatty degeneration and subsequent death.

Now it is realized that exercise according to a definite plan is the best thing for a heart patient. It is the best means of re-establishing and maintaining compensation. In every case, however, whether there is or is not compensation, a period of absolute rest should precede the exercise period of the treatment.

The rest period should last until any dropsy present is gone and in other cases for at least two to six weeks. During this time the patient must be waited on in every way. When the right time arrives, a system of passive exercises must then be instituted. This consists in moving the joints in every possible direction, without any active effort on the part of the patient, for a few minutes daily. The exercises must cease upon

the least sign of breathlessness or discomfort, or increased pulse. Each day the number of movements is increased and after a while the patient should offer slight resistance to the movements of the operator, or the operator resist the active movements of the patient.

At this time a mild massage may be given, but this should not be used before the dropsy is gone. Some teach that massage and passive movements will help in the absorption of the fluid back into the vessels, but the writer does not believe that anything is gained and harm may be done, for the reason that dropsy is due to circulatory failure and to force the water back into the vessels will undo what Nature is trying to do, viz., relieve some of the work of the heart. It is best to lie at rest and wait.

When it is shown that you can take considerable exercise in bed without discomfort in breathing, rapid pulse, or the return of the dropsy, you may be allowed to sit up in bed for a few minutes, daily increasing the time to hours. If there is still no discomfort you may be allowed out of bed for a short while each day, taking no active exercise while up, but continuing the bed exercise.

Active exercise out of bed may next be attempted. The Schott-Nauheim system may be used. These are no different from ordinary calisthenics but Schott's method of using them in heart disease is peculiar. All movements must be very slow, one limb or group of muscles only being moved at a time and only one movement made. For instance, one arm is slowly raised to the level of the shoulder and then lowered, once. Then the other arm and so on. The principle may be applied to any set of exercises that may have been published in *Physical Culture,* provided no apparatus is used, and only free arm movements made.

If the respirations are increased or the pulse rate increases too much, or there is any discomfort, less exercise is taken. As days go on the number of movements is increased and slight resistance or the use of light dumb-bells employed.

Walking and hill-climbing after the plan of Oertel may be undertaken. If the patient lives in the city he can walk a certain distance the first day, and if no discomfort is noticed, the distance may be increased by a certain number of houses on the next day, and so on. The whole idea of exercise is to adopt some system, the amount of which can be measured, and increased or reduced as need be, each day. If the heart becomes rapid, or if breathlessness or dropsy appears, exercise must be stopped and rest be resumed.

The Heart Itself

11. As usually is the case the heart is doing as well as it can under the circumstances. The best we can do is to take off as much of its load as possible, reduce the toxic condition of the body and wait until it is able to take care of the circulation. Digitalis has long been used as a heart stimulant. But much more can be done by lessening the load the heart has to carry than by whipping it up. This is done physiologically by reducing the food intake, fasting and facilitating elimination. If any stimulation is needed, the ice-bag applied over the region of the heart will suffice. This should be left on for fifteen or twenty minutes, then taken off for an hour, and this procedure repeated if necessary for effect. The effect is increased by applying heat for ten minutes before applying the cold. Hot applications are of value also in case of pain.

Heat may be applied to the extremities. This dilates the peripheral (surface) capillaries and lowers the blood pressure. On warm days the sun-bath will be beneficial, but must be of short duration.

Of course there are many complications that may arise, calling for special treatment, but if one will only get into his head the idea of assisting Nature by taking away the hindrances to her work, and not try to hurry matters, these will take care of themselves—in fact most of the complications in any disease are due to meddlesome methods of treatment and forced feeding. What is needed most is careful nursing.

Once on the highroad to recovery, you must "play safe" in everything that you do, if you desire to keep what you have gained. One thing is certain—the same causes will again produce the same results. We cannot tamper with the laws of Nature and escape the penalty.

HEMORRHOIDS (PILES)

PILES are an enlarged, tortuous and varicosed condition of the blood vessels in the tissues of the rectum, and sometimes the mucous membrane is extended outside of the orifice. There are both external and internal hemorrhoids. There are also bleeding and itching hemorrhoids. But the cause is practically the same in all types.

The cause is most frequently constipation and the attendant straining at stool. Exertion such as lifting weights, standing on the feet for a long period of time, diarrhea, dysentery, alcoholic excesses, etc., are frequent causes; also an enlarged prostate gland, inflammation of the bladder, etc. But in practically no case could hemorrhoids develop if the abdominal circulation were kept normal. By inactivity of the abdominal muscles and by a wrong diet, constipation develops or the liver becomes inactive, or usually both conditions are present.

These conditions, especially the inactive liver, make it impossible for the blood in the veins to return through the hemorrhoidal vessels of the abdomen, and this produces a stagnant condition in the rectum—the starting point of the hemorrhoidal vessels. As this blood is backed up in the tissues of the rectum, these tissues become engorged, soft, and toneless, and in time this condition becomes chronic. In this condition, straining at stool, and some of the other causes mentioned, are very apt to produce an extrusion of the tissues through the rectal opening.

It is far better to prevent the development of hemorrhoids than to wait until they have developed and then cure them, but the average person will not consider the possibility of hemorrhoids until they have developed.

Constipation must be corrected; abdominal muscles should be exercised, and the diet should be such that the liver will not be clogged and that its circulation will be normal. Diarrhea and dysentery should also be corrected by natural means, and any other condition mentioned as a cause should be corrected before the development of hemorrhoids, but if hemorrhoids have developed then usually more strenuous or rigid treatment will be required to correct the condition.

Mr. Wallace first consulted us when his hemorrhoids were well developed and prominently external. At certain times when he was tired or after lifting weights, there would be an extrusion of three or four inches and he would be incapacitated from further work for a day or two. He was extremely constipated, though there had been times that diarrhea alternated with constipation. His efficiency was reduced at least fifty per cent.

The following treatment brought about a complete correction of the trouble within less than two months: For three days no food was taken but six oranges daily. A fairly hot enema of one quart of plain water was given each evening during the fruit fast. Also twice a day he walked around the room for five minutes on all fours. This position, through the force of gravity and the natural rhythmic vibration of the abdominal muscles and organs, produced a drainage of the hemorrhoidal vessels and allowed the tissues to return within the rectum. Once a day after this exercise he went immediately to a cool sitz bath. Water was placed in the tub to a depth of eight inches; placing his feet on the end of tub and his hands on the sides of the tub, he lowered his hips only into the water and sat for three or four minutes. For the first day while the hemorrhoids were painful this sitz bath was quite hot.

Exercises were taken on an inclined table, one end level with the floor and the other twenty inches higher. Mr. Wallace lay upon this head downward, both upon the back and upon the abdomen. The exercises consisted of raising the legs in various moves and combinations.

After the fruit fast the milk diet was given in this instance. Skimmed milk was used and the quantity gradually worked up to five and a half or six quarts daily. Constipation was taken care of by the enema. This diet was continued for six weeks and at the end of this time the hemorrhoids had not only been reduced but the entire body was in a better condition than it had been for years, and constipation was entirely overcome.

In other cases we have used the fresh fruit and green vegetable diet following the fruit juice fast, instead of milk diet. Any diet that is comparatively free from constipating and clogging starches and sugars which ferment, and proteins which putrefy, will be inclined to reduce hemorrhoids very materially, and the exercises, baths, etc., will bring about completion of the cure.

Operation removes some of the blood vessels and materially

alters the nerve action of the parts and makes it more possible for hemorrhoids to return. Unless the cause is removed one is inclined to find his hemorrhoids returning after straining, constipation, or any of the other causes which brought them on originally.

INFLUENZA

IT has been estimated that 6,000,000 people the world over died from the "flu" during the three months it was at its height in 1918. It killed ten of our army boys for every one killed in battle. Its after-effects on those who were fortunate enough to recover were severe, and the economic loss to the world will never be estimated.

Carefully compiled statistics show that under various methods of handling the disease, various results were obtained. While under treatment which employed narcotics and other depressing drugs the mortality was over twenty per cent, with drugless and hygienic methods the mortality was less than one per cent.

With such facts as these it is evident that in the handling of future epidemics our study of prevention and cure should and must be along the lines that have been most successful in the past.

"The cure for influenza can never be found until we find the causative bacteria," is the common statement. Yet thousands were cured without this knowledge. Did a new bacteria suddenly come into existence to afflict mankind, or was the disease independent of bacteria? Is it necessary that the human race must perish while science is vainly investigating the causes of disease? Let us hope not.

Had bacteria anything to do with the cause and spread of the disease?

We will relate the experiments conducted by the U. S. Navy Department in co-operation with the United States Public Health Service at Boston and San Francisco. In these tests the most robust men obtainable were used and every way possible of exposure and innoculation employed. You can make your own conclusions.

Secretions and excretions from active influenza cases were swabbed and rubbed on the mucous membranes and skin of the subjects. They were sprayed into the nose and throat. They were introduced under the skin and directly into the blood stream. The sick patient coughed, breathed and expectorated

directly into the face of the subject. Not one of the men employed in the experiments contracted influenza or pneumonia, but on the contrary thrived during the time in which they were engaged in what was considered a dangerous procedure.

Moreover, it is known that the "flu" was more prevalent where masks and isolation were enforced than in those communities without restriction.

Can the influenza be prevented?

The "flu" must be considered a toxemia. The body is overcharged with waste material and the symptoms presented are but the efforts made by the organisms to bring about health.

To prevent influenza, therefore, you must keep the four natural avenues of elimination active: the lungs by deep breathing of pure air day and night; the bowels by use of laxative foods and occasionally the enema; the skin by frequent warm and cold baths, sun and air baths, and avoiding the use of excessive clothing. Wear as light clothing as is consistent with comfort, always trying to harden the body that less may be worn. Elimination by the kidneys must be increased by drinking freely of water.

Elimination is not all. What is put into the body is equally, if not, indeed, more important. The so-called heavy foods should be restricted. The less animal food taken the better. The ideal diet consists of fruits, vegetables, cereals sparingly, and milk. The more raw foods used the less will be the tendency to acidosis. Overeating must be avoided.

Then if you will avoid worry and especially the fear of disease, secure at least seven hours of sleep and take daily exercise out of doors the chances are against your having the "flu."

In many cases, however, even with the observance of hygienic rules, the disease may occur, simply because there is an old encumbrance which must be eliminated. In other words, the "flu" comes as a curative crisis.

Suppose one "gets the flu"—what should be done? The following has been our procedure. That the information may be readily used we have put it in itemized form.

1—The eliminative tract must be thoroughly and efficiently emptied, and kept so. An enema, consisting of from one to two quarts of warm water is administered. This relieves the lower part of the colon. Next the entire digestive tract is swept out by means of a briskly acting saline laxative, such as magnesium citrate, sodium phosphate or any of the commonly used saline waters. Common table salt dissolved in hot water is also ef-

fective. The enema should be repeated daily, but no more laxative need be given.

2—The patient had best go to bed and rest, as in this way every bit of strength is saved for combating the disease.

3—A glass of hot water should be taken every hour at least, and every half hour is not too often. Cold water may also be drunk if desired. The more water the less the toxemia and the greater the elimination. Lemon juice may be added to the water if desired.

4—For the first forty-eight hours not a particle of food of any description is to be eaten. This applies to broths, milk, gruels, etc. Nothing but water and lemon juice are to be allowed. Feeding increases the toxity and depletes the strength of the patient.

5—After the first forty-eight hours the patient may be allowed orange, grapefruit, or pineapple juice, a glass every two hours, with plain water at other times. The fruit juice used must be from fresh raw fruit. The fruit juices and water are taken until all fever has disappeared and for forty-eight hours thereafter. Absolutely no other substance passes the lips. If the fever returns when eating is resumed a return to fruit juices or the fast is necessary. Remember, one can live for weeks without food. No food can be digested with fever present.

6—For pain there is no better remedy than the hot bath or hot compresses. As soon as possible after the onset of the initial symptoms get into a tub of hot water and remain there for from fifteen to thirty minutes. Follow with a thorough rubbing, using a towel dipped in cold water, and then cover up in bed. Very often sweating follows and the attack is abated. If the pain in back and limbs is very persistent several hot baths may be necessary. Under no circumstances should narcotics or other depressive drugs be taken. The great mortality in the "flu" epidemic was undoubtedly due to the depressive action of pain-killing drugs. Where a tub bath is not convenient apply hot compresses to the painful parts.

7—The fever should be controlled but not suppressed. A temperature of 100 to 102 degrees is not dangerous and if all possible measures are being used for removing the cause of the fever there is no need for treatment of the fever *per se.* Should the temperature go over 103 degrees the safest method of controlling it is sponging the skin with tepid or cool water. This may be performed as often as necessary. The patient should be sponged as a matter of routine at least twice daily whether needed for antipyretic effects or not.

8—In case of local congestion or threatened pulmonary involvement, a cold pack should be applied to the chest. Have a towel or linen cloth long enough to encircle the chest, wrung out of cold water and wrapped snugly around the chest. Cover with a woolen cloth or another dry towel change as often as it becomes warm. Should there be no reaction precede the cold pack with several changes of hot compresses.

9—The patient is better out of doors than indoors—in the sunlight than in the shade; if he cannot be out of doors, he should at least be as near an open window as possible.

10—Keep visitors and busy bodies away from the patient.

11—Have the patient change position frequently to avoid local congestion. Give an occasional massage, moving the joints a few times. Apply hot compresses to the spine and afterward massage the back muscles thoroughly.

12—Allow the patient to sleep as much as possible. If there is sleeplessness put cold packs on the lower limbs.

13—Assume a cheerful attitude and look on the attack as a curative effort on the part of the body, and do nothing to suppress the elimination of toxins from the system.

14—When eating is resumed, be careful to eat very little, beginning with milk, buttermilk, vegetable broths, gruels and fruits. The exclusive milk diet is advisable.

15—Be wise and prevent future attacks by natural living.

Such is the method of treatment I will use on myself, my family, my friends, or my patients should we be so unfortunate as to fall victims to the influenza at any time. It has never failed me and often has either prevented the development of the disease or lessened its severity.

There are many minor details that will assist in making the patient comfortable, but the points covered are the essential factors.

INSOMNIA

ARE you a victim of insomnia? If so, here is how you can slip out of the clutches of the enemy. Yes, perhaps you have "tried everything." This woman had too—or so she thought.

She suffered from insomnia for fifteen years. Think of it! Almost 6,000 nights! Once in a long, long time, say, every six months or so, she would get the eight hours' sleep that we consider normal. Rarely did she get even seven. Usually she averaged around five or possibly five and a half hours, during which time her sleep was broken up, uneasy and troubled with bad dreams. Always she awoke unrefreshed.

Her insomnia started when she was twenty-one years old, with a nervous breakdown. She had always slept well up to this time, but suddenly, for some strange reason, every sound seemed to set her on edge. She couldn't stop thinking. If she got to sleep, she was restless and kept waking up. Had she known then what she later knew, she could have wiped out all this trouble in short order and cured herself of her nervousness into the bargain. But she didn't know; neither, it seemed, did the doctors.

Doctor No. 1 told her to relax, and made her rest a great deal. She was better as long as she rested, but the moment she tried to work, back came the nervousness and the insomnia, and as she could not afford to go on resting indefinitely, she grew steadily worse.

Doctor No. 2 also advised rest. A long vacation at Atlantic City was his prescription. The patient could not afford to have this prescription filled, but finally got so very ill she was forced to go to a sanitarium. Here she was given bromides occasionally to make her sleep, and here she did nothing but rest. When she left the sanitarium, she was thirty pounds heavier and looked well, but she was really more nervous than before.

Doctor No. 3 advised her to stop running around to doctors and quit thinking about herself. Usually a physician who makes such a suggestion as this, does it in considerable impatience. His manner gets across to a patient rather than any truth he may be trying to convey, especially where there is no attempt to

elucidate. Usually such advice accomplishes just one thing—the patient feels that the physician does not understand and is unfair; he feels that the physician is unsympathetic, hard and cruel. He feels that his sufferings are being made light of. As he is usually suffering something approaching the tortures of the damned this all hurts. It hurts like sixty! As a matter of fact, the doctor means well, but he should explain what he means—if he can! Generally he can't. He knows what is the matter but his knowledge stops right there. Such a physician is usually dropped by the patient as a know-nothing and the patient proceeds to become more sensitive and more introspective than ever.

Practically every physician this woman visited in her fifteen years of nervousness gave her such advice at some time or other. Not one explained.

It was Doctor No. 6—an osteopath—who said to her one day when he had her prone and helpless on her back on the treatment table, "You will find you can *sleep* all right when you *want to bad enough.*" She bounced up into a sitting position and demanded of that man:

"Do you imagine for one moment that I *desire* to lie awake?" The very idea seemed preposterous.

"Oh no, he didn't for one moment imagine that she did," he replied most blandly. Nevertheless ("turn over on the left side please") she could sleep when she really *wanted* to do so.

The worst of it was he seemed to think he meant something by this wild statement but he would not explain. The sufferer was left pawing the air in helpless indignation.

She knew later that what the osteopath told her was TRUE. When you *really want to,* plus when you *really know how,* you can cure yourself of insomnia.

She knew because she had tried it. She turned the trick in three months from the time she really got down to business. She did it through auto-suggestion. Let us explain that during these fifteen years of nervous suffering, this woman had tried everything to no avail. Finally she was able to see that her bodily ills were the result of lack of self-control mentally and emotionally. Worry-thinking, fear-thinking, over-tenseness, uncontrolled emotions, etc., had literally poisoned her, crippled her bodily functions and caused all her misery. She became convinced that her cure lay in learning to control herself mentally, in making herself master of her emotions, by training herself into new habits of thinking and living. A specialist once told her that he had never known anyone to have his health seriously injured

by loss of sleep, but had known many to suffer a great deal of distress from *worrying over the loss of sleep.*

After that when she didn't sleep she tried hard to relax and believe it couldn't hurt her. She tried to think pleasant instead of worried thoughts during these sleepless hours. This was hard, but she found the doctor was right. She discovered that often after a bad night she would feel quite well and vice versa. This convinced her that much of the distress she had been attributing to lack of sleep was due, not to that cause but to other causes. She saw for herself that loss of sleep isn't so injurious as she had feared.

It seemed plain that there was no real reason why she should not sleep, that her insomnia was simply a habit and could be broken up. She began giving herself auto-suggestions, affirming strenuously and frequently throughout the entire day that she would sleep well that night. Upon retiring, she told herself again, over and over, "I will sleep; I will sleep well."

But she kpet on having insomnia. One day she awoke to the fact that she was "auto-suggesting" all wrong. For instance, she noticed that every time she made affirmation that she would *sleep,* she really thought of *insomnia* because for so long the word sleep had meant to her only insomnia—through force of association. She realized, moreover, that while she was affirming in words "I shall sleep" that the frequency and vehemence with which she gave her affirmations really contained a strong suggestion of fear or apprehension. She was really shouting to her subconsciousness at the top of her lungs, in effect, "I am scared to death I won't sleep." Also she was talking too much about her insomnia. When she came down to breakfast, if any of her family asked her how she slept, she generally told them in considerable detail. She found herself talking to her friends about her insomnia and telling them how she was treating herself for it. She saw now that all this was keeping the idea of insomnia ever before her subconsciousness.

She decided that the best way to do was to *ignore* the insomnia. She decided that once a day she would make affirmation quietly, serenely and with determination that she was sleeping perfectly normally and would never have any more trouble in this direction, then forget all about the thing, thus acting as a person would act who slept normally and conveying this suggestion to the subconscious.

At night, when she found herself lying awake and the fear thoughts came, she would say quietly to herself, "Now, my dear, don't be a silly fool. *Of course* you are going to sleep,"

and then think about something else. In the morning when someone asked her, "How did you sleep last night," she said, "Better, thank you," whether she had or not. Gradually she found the strength to tell them not to ask her.

This meant real progress, for here was part of the trouble—in her self-pity. She found that she wanted them to know when she hadn't slept well—she wanted them to be sorry for her. She was so awfully sorry for herself! All this was keeping her mind on the thing.

As soon as she stopped noticing the insomnia, stopped reporting it to any one, and stopped thinking about it, she eliminated it.

Auto-suggestion can do wonders, but one must know just how to administer it. He must remember it is not the words one uses which do the trick, *but the idea which is presented* to the subconscious.

"You can sleep whenever you want to," said that doctor who angered this woman so. What he meant was, when you want to sleep badly enough so that you will cut out self-pity; so that you will be willing to sacrifice thinking about yourself; stop taking the line of least resistance.

For all of these three are easy, desperately easy, and can become as much of a habit as overeating, too much smoking, or in fact anything we do to excess.

And he was right! If you don't believe me,—try it! and at the same time make an honest, sane effort to correct any physical disorders that may be acting as a battering ram to the nervous system to keep it jarred into constant tension.

In many cases more will be required to effect a cure than we have given in describing this case. General exercise to improve the circulation and oxidation of toxic elements, which alone cause insomnia in many cases, should be taken in almost any instance.

The diet must be as free as possible from constipating, blood-polluting tendencies. Fruits and vegetables are better to induce sleep than the average heavy, concentrated diet. Air baths, friction baths, cool or warm water baths, all have soothing effects. These will not produce the same results in all cases and it may be necessary to experiment for one's self. A long walk late in the evening will soothe nerves and balance the circulation so that prompt, sound sleep will very probably result. Deep breathing is a great aid in most cases. One should avoid mental concentration for sometime before attempting to sleep.

These are the most important simple means of inducing sound sleep.

KIDNEY DISEASE

THE eliminating system of the body might be compared to the sanitary department of a city—the smoke inspecting department to the lungs; the street cleaning department to the skin; the sewers to the kidneys, and the scavenger's wagon to the bowels. An efficient sanitary department means a clean, healthy and beautiful city and an efficient eliminating system means the same state of affairs in the body. Let but one of these functions in either city or body fail to do its work and the city or body as a whole suffers.

It was some such trouble as this that brought my jolly friend, the business man, to see me. One of his body cleaning departments had begun to slow up and there were various symptoms presenting themselves that warned him it was time to make an appropriation and put matters in shape.

Being an ordinary human being he imagined that his body was immune to any disease, and that he could abuse and put anything into his body that he desired or that his appetite dictated. He had worked to the limit of his mental and physical capacity, urged on by the desire to be a success in life. He had smoked and chewed tobacco, and until the alcoholic weather became so dry, had indulged in a glass of beer or whiskey occasionally, not to excess, but just a social glass now and again. He had always answered the "call to mess" and did his share in keeping up the high cost of living every time he sat down to the table. He had consumed ham, bacon, salt pork, meats and fowl, lobsters, oysters and clams, vinegared and salted, as well as spiced foods of various kinds, tea, coffee, pastry and denatured foods galore—all eaten without any regard to proper combinations and without any idea of what happened to them when they got into the alimentary tract. He was a constant doser with many kinds of remedies and had taken several courses of treatment. He had also suffered in his life several attacks of acute disease the symptoms of which had been suppressed by drugs.

Now the same thing had happened to him that would happen to you or me if we lived the life he had been living—one of the eliminative channels of his body—the kidneys—had become

clogged with waste material and poisonous substances, and, being just human flesh and blood, had broken down under the strain of trying to eliminate from the body substances for which Nature had made no provision, and consequently an inflammation had set in—he had acquired that insidious disease that takes away some of the best people in the land—chronic nephritis or Bright's disease.

This disease stands fourth in the list among the causes of death, being exceeded only by organic heart disease, tuberculosis and pneumonia.

Bright's disease is the price those who transgress the laws of right living have to pay for their failure to realize that they are but human and a part of Nature and therefore subject to the laws governing life. The definite cause may be any of the items mentioned in the case of our friend the business man, or all of them. It is a condition of toxemia—poisoned blood. To say that it is due to bad teeth and tonsils, or other foci of infection, or to previous infectious diseases is poor reasoning, for these in turn must have had a cause, and that cause was —poison.

The various eliminative organs of the body were designed to get rid of the normal products of metabolism and they do so in a very effective manner when not overworked. Nature made no provision for the elimination of the many destructive substances we constantly take into our bodies. The cells in the different parts of the kidneys have a selective power, some of them eliminating water, others salts and combinations of various elements which are of no further use to the system. No provision, for instance, has been made for the elimination of the various metallic poisons often taken as medicine, nor for the products of decomposition and fermentation of the excess of food material eaten, nor for tea, coffee, soda water, alcohol, nicotine, condiments and other things taken in the name of food, but which are foreign to the economy of the human system. True, they are eliminated to some extent from the system or the body could not exist, but it is at the expense of cell irritation, and, in time, disease.

One of the first symptoms experienced by our friend was a feeling of weakness and loss of appetite, which to him was the worst possible calamity that could befall a man, he never realizing that by this very means Nature was trying to call a halt on one of the causes of his condition. He was troubled with painful headaches and dizzy spells, and it was found that he had a high blood pressure. He soon began to lose some of the weight

he had been carrying around for years, another source of worry to him. Some of those afflicted with this disease keep their fat up to the very last, and the mere fact that they are fleshy deceives them into believing they are perfectly well. A little puffiness appeared under the eyes each morning and in time some swelling of the ankles and other parts of the body. Shortness of breath and great weakness on making any exertion added to the distress. The skin began to change in color, becoming pale and sallow, with a scaly roughness and lack of perspiration. Examination of the urine revealed the presence of albumen with casts of various kinds, showing that destruction of the kidneys was going on. It should always be remembered that there may be no albumen in the urine and nephritis still present. In such cases the specific gravity of the urine may be very low with or without the presence of casts, the interstitial type of disease being present.

A high blood pressure is often the first indication of Bright's disease, found perhaps upon making application for life insurance. This is especially true in the interstitial form. Everyone should periodically have their blood pressure determined and their urine analyzed. In many cases if the warning is heeded in time disastrous results may be avoided.

Nosebleed and hemorrhages into the skin are common symptoms. Insomnia, mental depression, stupor and coldness of the extremities increase the disability for active business life.

A very indicative symptom is gradual or sudden failure of the eyesight. This may take the form of a general failure, or through a retinal hemorrhage partial or complete blindness may occur. An ophthalmoscopic examination of the eyes should be a routine proceeding in all cases of suspected kidney disease.

In those cases where there is an involvement of the heart the outlook is less favorable. If the adjustment of the functioning of a weakened or diseased organ can be maintained, however, more may be expected from treatment.

There is usually a decrease in the hemoglobin and cellular elements of the blood, which still further results in decrease in the general nutrition of the body.

Need we add more to the picture? Enough has been said to warn one of the approach of danger, and many of the symptoms mentioned indicate an advanced degree of the disease where in most cases recovery is a doubtful proposition unless the right treatment is instituted in the incipiency. A person may live just as long as there is functioning tissue enough in the kidneys to take care of elimination, and no longer.

The treatment of Bright's disease is not a question of repairing or replacing the destroyed tissues in the kidneys—that is impossible, as we do not grow new kidneys as a crab grows a new claw—but it consists in removing if possible, the cause of the destruction and preventing further damage. It also consists in allowing Nature a chance to heal the wounded tissues if such can be accomplished. In all cases where there has been an apparent recovery there will remain some symptoms showing that the body is trying to get along as best it may with a damaged organ.

The best treatment for Bright's disease is observance of those rules of living necessary for its prevention. If we can find out how to prevent the disease we will know how to cure the curable cases. Some will have gone too far along the road to destruction ever to come back, but it is never too late to try what can be done and Nature often works wonders for those who follow the law.

Bright's disease is one of the results of modern commercialism—the commercialism that has to do with the production of foodstuffs and other articles to be eaten or taken into the system for one purpose or another. When primitive foods were used it is safe to say that there was little disease of the kidneys. The manufacturing and changing of foods from their natural state into compounds of doubtful composition or into inorganic form—supplies material not for nutrition, but for toxemia. The first step, therefore, in the prevention of Bright's disease is to adopt a primitive diet. Foods must be used in the form in which Nature has provided them; fruits must be used as the natural ripe fruit; cereals as the unchanged whole grain prepared in a manner that preserves their nutritive elements with as little change as possible; milk must be produced and kept under sanitary conditions, and used in its unchanged organic form; meats, if used, must be fresh, and not used in the salted, smoked, embalmed, pickled or canned condition; vegetables that can be eaten raw should make up a great part of the diet, and those that have to be cooked must be prepared so that all of the nutritive elements are secured; the drink of the people must again be water—pure and undefiled; not until then will we have made the least beginning towards preventing or curing this dangerous disease.

You must keep out of your alimentary tract all substances which are not food—and think of the host of things you are constantly eating, drinking, or taking that have absolutely no nutritive value but which have a decidedly harmful effect.

You should drink from a quart to three quarts of water daily, depending upon the time of year and character of food eaten. Heavy meat eaters and those consuming large amounts of food require lots of water—lots of it—and no one should get the mistaken idea that water drinking overworks the kidneys. It is the solids in solution that overwork the kidneys and the more water the less concentrated the solution and therefore the less the irritation in the kidneys.

Rest and relaxation periods must alternate with work and most people need at least seven hours' sleep, depending upon their occupation and the care they take of their bodies. The less we work, the less we eat, the less we worry—the less sleep we require.

Active exercise is contraindicated when there is a developed kidney lesion, but is especially indicated in keeping the blood in circulation and elimination active in those who wish to prevent the disease. For the business man who desires recreation as well as exercise, outdoor games in the summer and the various gymnasium games in the winter, with walking in all seasons, will afford physical and mental change.

A clean skin should be a prized possession. By a clean skin we do not mean one that has been simply scrubbed with soap and water, but one that has been aired and sunned as well. Most people's skins are of no use as eliminating organs because they have been smothered with clothing and injured with soap scrubs. Let more air and sunlight get to the skin and let cold water take the place of soap and hot water. In this way the eliminative power of the skin is built up.

Bowel elimination is best kept active, not with laxative medicines or the enema, but with laxative fruits and vegetables. Purgatives and enemas are usually followed by increased elimination of solids by the kidneys because the liquefied substances are reabsorbed and eliminated by them.

Learn to breathe deep that lung capacity and elimination may be increased. The kidneys will thank you for it.

A business that requires much worry is not worth being in. Worry as well as anger, fear, hate, jealousy, or cynicism fills the body with toxins as surely as overeating or inebriation, but on the other hand, complacency, kindness, love, trust, faith, hope and delight in the beautiful, preserve the equanimity of the mind and keep the fluids of the body normal.

But what about the man already in the grasp of Bright's disease? All that has been said applies to him—only an even more strict régime must be observed. Here is indicated fasting

periods in which no food but fruit or vegetable juices are taken, the milk diet, rest in bed, increased skin and bowel elimination, conservation of energy, correction of bone and muscle lesions, as indicated by the particular case. There is no specific medicine or treatment that will have any permanent effect on this disease beyond what the healing power of the body can do for itself when provided the right environment.

Let us treat our kidneys as though they were a part of us and save them needless work. They are the only kidneys we will ever have and for myself I would rather save mine than let them get into such a condition that a cure is necessary.

LIVER DISEASE

NEITHER the Three Graces, the Three Fates, nor the Three Musketeers were more indissolubly bound up or more clingingly tied together than are those three very interesting and exceedingly important things—life, love and the liver.

On first thought it might seem feasible for either two of this trio to be happy with the other fair charmer away. But more serious consideration of the question demonstrates that this is not possible.

Punch recognized a part of this fact in its prehistoric aphorism, "How one lives depends upon the liver." But Punch didn't round out the equation. He neglected to say that "How one loves also depends upon the liver."

The wife or the family of any bilious "grouch" will substantiate this. And the worst of it is the poor chap can't help it—any more than a kangaroo can help hopping. For his actions are prompted by his mental attitude, his mental attitude is dependent upon the freedom from irritation of his brain and nerve cells; the freedom from irritation of the brain and nerve cells is dependent upon the purity of his blood; and the purity of his blood depends upon how effectively the liver is straining out of his system the poison that is held in solution in his blood. And there you are.

It always reminds me of the way Kellar, the magician, used to "explain" his marvelous tricks. Volubly, and with elaborate detail, he would descant upon his methods of performing a certain bewildering feat. And so, when he removed a goose or a wash-tub full of goldfish from a tablecloth that you were quite certain had only two sides, and flapped it about like any other tablecloth, you knew exactly as much as you did before the explanation.

It is something the same with the liver and its mysterious functions. We know what it does; we have definite ideas about certain of its attributes; but the real nature of these activities is as obscure as the working plan of Kellar's legerdemain is to the majority of us. It is as hopelessly insoluble as is life

itself, or gravitation, or chemical affinity—or any of the things we discuss so glibly, and with such complete futility.

So just why the liver does the things it does is one of the most interesting problems in modern physiology—and the most wonderful. It discloses, for one thing, that stored up in each little six-sided, sallow-"complected" liver cell, no larger than a grain of mustard, is a capacity for neutralizing poisons and for converting toxins into harmless by-products that is the despair of chemists.

It absorbs toxins, generates anti-toxins, and filters out of the blood—every last corpuscle of which passes through its poison sieves once every twenty minutes—material, the accumulation of which in the system means certain death to the individual.

The Food-Inspecting Liver

And it is the Food Inspector Extraordinary of the body—a food inspector that really inspects. For every particle of digested food is carried first to the liver, through the great portal vein and its branches. Here, if the liver is really "alive," the toxins and the harmful elements in the dissolved food undergo that marvelous transformation into harmless—or even helpful—substitutes.

But if the liver is down in the mouth, sluggish and morose, it won't be long before its owner will be likewise—or more so.

For the neglect on the part of the liver to neutralize these poisons and to filter them out of the blood, permits them to travel at will throughout the system. They are thus brought into contact with even the remotest cell. For a while, the principle of "selective affinity"—that wonderful "thing" that tells each cell just what to pick out of the blood for its nourishment, and what to reject—operates normally—"functions" as we say in physiology.

Then its keen scent, or its discriminating taste, or its irritation in the presence of substances foreign to its own make-up —or whatever it is that supplies "intelligence" to the liver cells—becomes weary with the protracted struggle, and with a dull moan of despair the liver turns its face to the wall, heaves a long sigh, and gives it up for a bad job.

Then the toxins and the disorganized organic substances that should have been excreted run rampant in the system. They infest the blood stream, they darken the hue of the blood—so that it no longer shows through the translucent skin in its natural rosy tints. Like the garish sun, disclosing the physical

shortcomings of an ancient débutante, it gives the natural yellowish pigment of the skin a chance to come out into the open and be seen.

The bile—which is now believed to be merely a waste product of digestion, with antiseptic and lubricating properties—is no longer thrown into the alimentary canal to be got rid of. Not in anywhere near the amount secreted, anyhow. So the balance is absorbed into that great sponge, the blood, still further to sallow the complexion and yellow the eyes.

The first effect of all this retained poison is to depress. All the vital functions are "slowed up," digestion is impeded, assimilation is interfered with, and the nutritive and eliminative processes are sadly hampered.

The brain and nerve cells, yielding to the toxic influences, become lethargic. Thought, instead of flowing freely in limpid streams, oozes along like the current of a muddy brook. The ability to memorize and to correlate—or to associate faces, facts, names, and places—is crippled, and the mental powers suffer a handicap.

But one of the saddest of all the sad symptoms of sluggish liver is its effect in souring otherwise sweet dispositions. Loving, generous fathers, when under the influence of bile-intoxication, become morose, melancholy or irritable—with a rasp on the edge of their tempers like the teeth of a buzz saw. Their former liberality is changed to penurious penny-pinching; their solicitude to hate-breeding and fault-finding.

Mothers whose natures were all that sweet mothers' natures should be, when poisoned by the delinquencies of their livers, become veritable termagants, or else querulous, impatient "naggers," bent on making life a misery for themselves and for everybody who is unfortunate enough to have to live with them. And this they can no more help than can acid help neutralizing an alkali or than sugar can keep from dissolving when water is poured upon it.

For the delicate nerve cells, the little electric batteries that govern or are governed by "us" (this is a hen and egg problem; no one knows which comes first) react to the irritation of the toxins. They irritate, in their turn, the mental nature and the rest naturally follows.

When all the family get this way at the same time—as not infrequently happens if they all eat spoiled food, or the wrong kind of food, or too much of the right kind of food, or if they develop malaria together, or if they do anything else together that lowers their vitality, increases their loads of toxins, or

further frazzles their irritated nerves—Cupid and the Lares and Penates grab their chattels, jump out the back window, and make a grand "get-away." For love simply cannot live in a house full of "livers."

Now, all these things being true, what means are we to adopt in order to prevent the liver becoming "sour" or else sweeten it back to its normal state, if that catastrophe has already occurred?

First, and most important, "Clean Out and Keep Clean"—to borrow the language of the Alkaloidal School of Medicine. It is utterly impossible to overemphasize the importance of this. The colon must be kept as nearly empty at all times as is practicable, to the end that absorption of toxic products from the intestinal canal into the blood-stream may be prevented. Most anything that helps in this is commendable. But the chief measures are regulation of the diet, water drinking, and exercise.

The use of enemas and colon irrigation has been strongly recommended by many. There is no doubt that these are very effective ways in which to "clean house." Nothing one can do or does do to keep the lower bowel free from its clogging accumulation of poisons is as bad as to persist in a "let it alone" frame of mind. There is no more efficient method of shortening one's period and degree of usefulness than persistently to pack around a lot of poison in the lower bowel.

Next to getting rid of the poisons that accumulate in the colon, it is important that they be kept down to a minimum by preventing food decay.

Meat, the easiest of all foods to decompose in the heat and moisture of the alimentary tube, should be eaten sparingly. Once a day is often enough for anyone to eat meat, unless he is engaged in very active outdoor life. It should be thoroughly chewed—as should all food.

Scrupulous care should be taken to avoid eating any sort of food that is "spoiled." Nature gave us the senses of smell and taste so as to prevent our eating decayed, rancid, stale, unfit food. Usually if a thing smells bad, tastes bad and looks bad, it is bad. If in doubt "pass it up." You'll pass up much more in life, following this plan. For you'll have a longer and more healthy life to do it.

Fats and starchy foods should be used only moderately. Candies, pastries, cakes and sugary desserts should be placed on the expurgated list. It's bad enough for a person in a robust state of health to try to eat and utilize these toothsome

tidbits. But they are rank poison to one who has a liver lurking in the offing seeking whom it may devour.

But green vegetables, especially those that grow above the ground, can hardly be used to excess. They are good for what ails us—in the free and accepted sense of the term.

Their indispensable alkaline salts, their tissue-building vitamines, and their bland bulk make them among the most valuable of all food products. It is sincerely to be hoped that the methods of drying out their water content and preserving them in their desiccated form may soon come into general use. For this would provide millions of us with an all-the-year-around food instead of a six-weeks-in-the-year fad, as now obtains with many of them.

Plenty of water should be drunk each and every day. A dozen or more glasses, taken hot or cold, as preferred, will cheer the liver wonderfully and help it to get rid of its ever-accumulating bile, and keep the toxins moving merrily on their way to the sea.

Grapefruit, oranges, apples, grapes, or any of the fruits which have been so highly extolled as "liver stimulants," would have a very much better effect if always they were taken between meals, or else instead of a meal, say as a "fruit breakfast." In this way, all the splendid good effects of fruit may be secured, while their likelihood to cause fermentation in other foods taken at the same time may be prevented.

It is hardly necessary to add that the liver should be twisted and wrung by exercise. Not occassionally, but regularly.

And never should the liver be bludgeoned by "booze." There is hardly a poison taken into the system, the oxydizing of which has a more pernicious effect upon the liver than has this same "booze." And, there is no one organ in the body quicker to feel the corroding influence of John Barleycorn's torrid touch than this same liver.

Also, beware of introducing other poisons into the system, and you'll be doing a whole lot that both you and your liver will be heartily glad of.

By paying this proper respect to the big, willing gland whose health means so much to our health, it is possible to transform hate into love, melancholy into abounding joy, apathy into ambition, and to become altogether a better brained and better hearted race. And that's worth working for.

NEURASTHENIA

NOW, at the outset, let me say it good and hard that "nerves" are absolutely due to physical reasons and I'll prove it. And then I'll tell you how to get well and go right along with your work and it won't cost you a cent. Now won't that be nice? Unless you live in a dark cellar you can get well probably in sixty days—*over eighty per cent of one thousand consecutive cases did,* the others (save two, and I will tell you about them) *got well in ninety days and kept working.*

The sad thing about it is that some people haven't courage enough to stay by the simple regimen for even sixty days! Then they can't get well. I won't say they are not worth saving because I pity the veriest dog with this affliction. And sometimes I feel that when a man gets well of this thing and has a good friend who is in the same fix he was, that he ought to go to him and tell him that he is not going crazy but that he *ought* to if he won't stick to the thing sixty or ninety days that will make him well as sure as little apples were made.

I have waited nearly nine years since my own trouble left me through my following the régime outlined here, and I am as certain of my ground here as I am of the morning sun. We doctors used to say, and some do still, "there's nothing the matter with him or her—it's just in the head." But good Lord! That's just the trouble, man! We're trying to keep the body in shape to keep the *head* happy? Is it not so? Where are you happy? In your feet? If a disease is in the head it would seem that it had fastened itself in the most strategic place to finish off the man. "Just in the head!" That's pretty good!

Did you ever stop to really wonder what it was that made them do it when you read in the paper the next morning that John Williams or Bessie Adams committed suicide? Sometimes they shoot themselves while sitting on a park bench, sometimes they jump from a bridge into the dark waters of death below. I say did you ever stop to figure it out, just what particular brand of "poor health" (that's always the explanation given) it is? In nine cases out of ten, or forty-nine out of

fifty, these people are *not* insane and wouldn't become insane if they lived out their natural time. Osler says of these unfortunate "Neurasthenics" (but the name does not mean anything): "Sometimes in sheer desperation they take their own lives."

Some of these people actually take their own lives because they *think* they are going insane! I have had the following happen more than once: A woman would call me. She would close the door tight so as to make sure nobody could hear her "terrible confession," then tell me for the sake of her family not to tell a soul but that *she was going crazy.* Then she would break down and cry like a baby.

The doctor that would go to a case like that, and some of them there are, and simply leave a few chalk pills and come away and make sport of that woman to his intimate friends ought to be horse-whipped. At that, his pain would be nothing compared to that of the woman. As to all doctors going to heaven, there is doubt about it. But not all doctors are like the being suggested. Far from it. And most of them, when they frankly admit that they don't know what to do for these people, are kind enough to *want* to know and *wish* they could do something at least.

You who have never had "nerves"—you do not, you cannot know how the other (I had almost said the other half) lives. And no matter who you are, how rich or how poor you are there is no assurance that this "thing" will not hit you. I have just had a letter from an author of international fame who writes me that "I have had to give up all my correspondence because of some kind of nervous trouble. My physician says I must rest until midsummer and maybe until fall. I seem to be unable to work at anything."

Poor devil! You bet he'll have to rest and rest some more and he may never be himself again unless he hits the right trail.

And let me make it as strong as I can, that the person who gets well of nerves by merely resting is in great danger of going to pieces again if he has not learned the cause. *It is extremely doubtful if hard work ever broke a man down.*

If I had my way about it I'd give every medical student in his senior year one good hard dose of "nerves." A month—not more—then cure him and show him how. Then, when the woman who thought she was going crazy, called him and didn't want her children to know it, she'd have a real doctor. And he'd tell her how to get well and give her a chance anyway. You see, it's mighty easy for a doctor to clear up his throat powerfully and make people *think* he knows when he knows

he doesn't. One of the best surgeons I ever knew said to me, "I used to say that when people had 'nerves' there was nothing the matter with them. I've changed my mind about that. I know there is but hanged if I know *what* it is!" When a doctor or anybody else gets in that frame of mind he is learning.

And now here it is: *The cause of "nerves" is the over-assimilation of protein foods and sugar.*

And if the person afflicted takes into his body as food that which will cause the "pigment ring" to disappear—presto! the gloom is gone—he is well!

If you want to get well of "nerves" here is what you must do, and especially if you want to *stay* well.

1. *Quit all meat and eggs, absolutely.*
2. *Quit sugar, absolutely.*
3. Chew all your food into a cream before swallowing (never mind if this isn't new. Neither is the sun and the rain but wheat does not refuse to grow on that account).
4. Eat three meals a day but eat sparingly. *Always quit while you want more.*

Try to be out of doors at least three hours a day.

People have said to me when I mention diet, "Oh, I have tried that and it's no use. *But never in a single instance have they complied with the above rules with absolutely no deviation for even sixty days!*

Say you don't believe it. Go at it mad if you want to, but *do it.* Mother Nature will hammer you in shape and you can't help it. I don't know why some of us have to do these things. I don't care very much if we can be well and happy by doing them. Should we care much about the why?

You see, a thing is either susceptible of proof or it isn't. This one is. You can get in "cheerful surroundings" and try that cure until the sun turns green but unless you quit the things that are poisoning you, you can't get well and stay well. And if you do have a "lucid interval"—if the really insane people will excuse that expression—you may go down again any time.

A volume could be written on how great men have eaten and how it made them what they were. As the intake of thy food so shalt thy days be. Cromwell was a very spare eater; so was Luther. When Robert Burns was a poor plough boy and able to get only the coarsest food that tempted only a natural appetite he wrote his immortal poems and songs. When the rich took him up and feasted him he was done. "Auld Lang Syne," indeed, did come forth during that orgy but it was like the blaze of a glorious sunset for it was the last. Bad whiskey and bad

gin (for it's all bad) did not ruin Burns' brain half as fast as big platters of greasy pheasants and brown gravy. There is nothing on earth that will kill the brain as quickly and as surely as three Christmas dinners a day. Everybody knows how Edison eats and this is being written under a light that came from his brain. When Cornaro was forty he was a Saul. When his doctors gave him up, God told him to try being a man instead of a hog. He did and gave the world his immortal "Treatise" at nearly a hundred. John Wesley walked six miles when eighty-five to a preaching appointment, and when he was asked if he were tired, said, "No, I feel as young as I ever did, except that I can't walk and run quite as fast as I used to!" All his life he was the sparest of eaters. He ruled his stomach. It didn't rule him. Booth Tarkington eats just as little as possible to keep him going. Don't you wish you could write like he can? But did you know that you cannot get anything worth while in this world unless you pay the price for it? Your brain of course is what it is. That was in at the birth; but it's no matter whether you are a ten talent man or a one; you can increase it with interest or you can bury it by eating. It's up to you. If you have never had nerves you don't need to get them. And if you have them, are you strong enough to cut out the meat, the eggs, the sugar, chew your food into a cream *and get up from the table hungry?* If you are, and you can if you will, you are in line for the greatest happiness in the world. The body was made for the mind, the mind was not made for the body. But on this side of the undiscovered country at least, you've got to handle that body just so or the game isn't worth the candle.

NEURALGIA AND NEURITIS

Neuralgia

THE symptoms of neuralgia are a violent and acute pain along the course of a sensory nerve, more or less spasmodic in character, not accompanied by any symptoms of inflammation of the nerve itself. Instead of pain may be a numbness. A peculiar feature is that pain is relieved on pressure. Numerous conditions may act as predisposing or exciting causes, among which are heredity, anemia, cold, injury, infectious fevers, metallic poisons, alcohol, nicotine (tobacco in any form), gout, diabetes, disorders of the central nervous system, etc. Neuralgic pains are often a complication of other diseases, and may appear in all parts of the body. They occur most often in the region of the forehead, face and chest, the varieties being named according to the nerve involved.

It is well here to draw attention to the folly of seeking a remedy for neuralgia in the use of any drugs or opiates. It is true the disease is often palliated in this way; but the result of such a method may show itself in later years by an attack of facial or other paralysis.

Neuritis

SYMPTOMS.—An inflammatory affection of a nerve, similar in its symptoms to neuralgia. The pain is extremely violent, especially when the part affected is subject to movement. As a rule neuralgia is the term applied to an inflammatory condition of the nerves of the head and face, neurities to those of the arms and chest regions, sciatica to the main trunk nerve of the leg, and lumbago to the nerves of the lumbar regions.

The cause of all these nerve affections is identical—impurities circulating within the blood and lymph streams, and more or less starvation for the vital mineral elements and vitamines. Among exciting or contributory causes may be mentioned wounds and injuries, compression of nerves, cold and damp, syphilis, and lead poisoning. The remedy is therefore the same in each instance.

Multiple neuritis is inflammation of a number of nerves, and is attended by symptoms of pain, numbness, loss of muscular control, and sometimes muscular atrophy, and mental symptoms.

It is the direct result of the presence of poisons in the blood, sometimes following upon attacks of malaria, diphtheria, syphilis, rheumatism or some other disease, or cases of poisoning through lead, arsenic, alcoholism, etc. The inflammation is most intense at the extremities of the nerves.

TREATMENT.—These are beyond all question distinctly diseases of the blood and can only be treated through the purification of the life stream and supplying deficient elements in greater abundance. In nearly every instance a fast and the free drinking of water, if continued from one to three days, will effect a cure or great relief. However, where the attacks recur at frequent intervals, the cure of one attack will not free the patient from future trouble. It is necessary, therefore, to persistently follow a method of constitutional upbuilding.

In the treatment of an acute attack, I would first of all advise fasting for from three to seven days, or to be adhered to as long as the symptoms continue. The only allowable deviation from this fast would be (where there is a strong craving for acid fruits) oranges or lemons in limited quantities. As the acute symptoms of the disease disappear the milk diet should be used or a limited diet of fruits and vegetables may be used, after which gradually increase the variety and amount. Following this your ordinary diet may be adopted, but use great care to avoid overeating.

The only local treatment of any value is the application of hot fomentations to the painful parts, though these may be followed or interrupted by very brief application of cold water.

Where there are indications of constipation, a full enema is advised when beginning the treatment, and a small enema each day while the acute symptoms persist.

Hot abdominal packs are sometimes used. They are best applied at night and allowed to remain until dry, or until morning, provided the patient sleeps well. If the patient is at all feverish, these packs should be given cold.

The constitutional treatment includes a vitality-building regimen adapted to your needs, and the adherence to a diet that previous experience has indicated will agree with you. Air baths and sun baths are of value because of their tonic effect upon the entire nervous system.

Exercises of all kinds adapted to your strength will greatly assist in effecting a cure, but should not be such as to aggravate the pain at any time.

OBESITY

SOME animals have the faculty of storing up adipose tissue during times of food plenty, and using this as a source of energy when sustenance is scarce. The camel, for instance, has deposited in its hump enough nourishment to last for many days, and as this animal often has to travel long distances without opportunity of securing food, its private "delicatessen" serves an extremely useful purpose.

There are many human "camels" walking the streets all having "humps" in various parts of their anatomy containing large stores of fat—quite enough to sustain them for days and weeks should necessity arise. Many have fifty, seventy-five, a hundred, and even two hundred pounds of weight in excess of normal. This is usually pure fat. Think of the energy contained in such stores of fat! What an amount of work could be done with it if liberated as energy! Many, if they would but consider it, are carrying around with them under their skins enough food material to last them until prices come down. Such "camelizing" might in time become a popular method of beating the profiteers at their nefarious game of "squeezing the pocketbook."

Why and how does one become stout? Some are stout by reason of heredity, and others because of their own efforts. In times gone by, alcoholic liquor was responsible for many a superlative form. In most cases, however, eating more food than the daily needs of the body, or lack of exercise, or both, is responsible. Some people with good digestion and assimilation turn every ounce of food eaten into fat. Some seem to get fat on water and air, with an infinitesimal amount of solid food added. In some cases this is in spite of exercise. Again, some gain because of eating foods which are especially rich in tissue-building elements. This is especially true of those consuming large amounts of fatty and starchy foods when these are combined with a heavy protein diet.

Many athletes when their days of active training and competition are over settle down to lives of ease and feasting and very rapidly put on flesh. Their previous healthy life and restricted training diet increases their digestive and assimilative power

and as soon as they begin eating heavily they gain very rapidly. It is these that are ready victims to Bright's disease, apoplexy, asthma, gall-stones, gout, and heart disease. Not because they have practiced athletics, but because they fail to continue their health habits.

Some are fat from babyhood. In some instances there is a glandular disturbance which may be of congenital origin or acquired. We all know of the fat boy, always hungry and ready for meal-time and continually looking for a bite between times. If he survives to manhood he will usually be one of the army of the obese, perhaps reaching middle age but seldom reaching the three-score-and-ten stage of life.

As a rule both men and women with normal digestion and assimilation put on weight after forty. This may be due to a decrease in activity after this age because their better financial standing does not necessitate physical labor and because of the mistaken idea most people have that as they reach this age they must needs take less exercise and eat more to keep up their strength. Slothfulness and gluttony are the habits that keep the Turkish bath parlors in business and, it might be said, the doctors in gasoline money. They also keep the circus side-shows supplied with fat ladies.

What can we do to get thin? is the wail of the sufferers from "Oily Dropsy," as Lord Byron called obesity. "Is there no way by which we may reduce ourselves to normal proportions and at the same time enjoy the liberties of the dining table?"

The simplest prescription one could give would be to eat less and exercise more. It is certain that increased weight comes from somewhere and the surest guess is that it comes from the food eaten. Therefore to eat less would be to build less tissue. Also it is certain that increased work and exercise will help to burn up some of the excess baggage if one has gumption enough to do it. That this prescription is a distasteful dose to most of our bulky friends goes without saying. Most of them do love to eat. And they certainly do like to sit in the shade, rather than get busy with the hoe and rake, or chase the golf ball around the green. They will tell you that they "don't eat enough for a child, let alone enough for a big strapping man or woman with a healthy appetite." This may be true, but flesh has to come from somewhere, and since it has been proved many times that weight cannot be increased by water and air alone, our old friend "food" *must* be the culprit.

Practically all weight reduction schemes entail the study of menus and lists of foods that should be eaten and those that

should not. I have four methods to suggest, all of which are safe and have proved successful in many cases. All are simple and do not require time and study to put them in practice. They all improve the condition of the health at the same time weight is reduced—in fact, one reason the weight reaches normal is because the body improves in health.

The first of these methods is a literal "eating of one's fat" and is especially to be recommended to those who wish to save food expenses. This is to fast or "camelize" until the desired weight is reached. It is not necessary to fast for a very long period at a time, but rather to fast for three or four days and then eat lightly for a few days and then fast again. Some do very well by fasting every other day, but if you adopt this plan do not eat enough on the intervening day to make up for the day you fasted. Those who have the will power can fast for from five to ten days. We would not recommend a longer time than this unless you are under the care of a physician understanding the technique of fasting. Therapeutic fasts should rarely be self-conducted.

In some cases three or four pounds will be lost on the first day although the average is a pound a day. The best part of it is that digestion is being improved and disease driven from the body. Some spoil the results by returning to their habits of overeating and of course they rapidly regain the weight lost. Nothing else can be expected with their improved digestion. They should be thankful for their better digestive apparatus and spare it by eating less. They should eat a well-combined diet consisting of foods furnishing all of the elements needed by the body, the idea being to eat as little as possible of all foods rather than to reduce the quantity of fat-producing foods or to increase the non-fat producing foods.

Some have recommended that the obese drink very little liquid, but there is no better way to bring on auto-intoxication and to injure the already weakened kidneys than through this advice. Water may be taken freely if taken at the right time. Our advice is to drink freely of water between meals and take as little as possible at meals. Fluid taken between meals is more rapidly eliminated from the system, while fluid taken at meals tends to increased weight.

Our second method is to eat nothing but oranges for as long a period as desired. It is really wonderful how well one feels on such a diet and it is an effective way to get rid of the surplus pounds. One of our patients took but six oranges a day for sixty days and lost fifty-three pounds. There was not a day during

the whole period that he did not feel as well as he ever did in his life, and he was able to exercise and do as much physical work as he did while eating his regular diet.

The third method is one that can be recommended to those who "wish to eat something, if only a little," and is really a safe and effective regime, and one that will surprise those who think of the food mentioned only in connection with gains in weight. The plan is to go to the table at meal times and sip or eat one glass of milk only, taking no other food during the twenty-four hours. Three "meals" per day may be taken. If only a slight loss of weight is desired, two glasses of milk may be taken at each meal, but this may be adjusted according to the needs of the individual. Take the amount upon which there is a *gradual* loss of weight. Milk is a normal food and keeps all of the functions of the body in working order.

The fourth plan has been hinted at above. This is to eat a mixed diet of any foods desired but to limit the quantity to the amount upon which a loss is noted. This is the key-note to success in any weight reduction régime. By this plan fats, starches, and proteins are eaten as desired but the amount is limited, according to loss or gain of weight. If bulky food is desired to fill the stomach and ward off hunger, such vegetables as lettuce, onions, spinach, celery, raw cabbage, and tomatoes may be used. If you find that upon a certain amount of food your weight remains stationary reduce the quantity or miss a meal every other day until you reach the amount of food upon which you gradually lose. By this plan you do not have to worry yourself about diet lists or menus—eat what you want but limit the quantity.

I do not favor excessive exercise for the obese. They are too often afflicted with weakened vessels or fatty degeneration of the heart to make exercise anything but a risk. The effects of exercise are not always noted immediately, and because weight is more rapidly lost while taking exercise they are urged to indulge to the limit. The frequent sudden deaths of stout people are often the result of previous exercise or extreme exertion in the course of occupation. Those who show a good muscular development can be benefited by exercise and can safely take exercise to reduce, but where the bulk of the weight consists mostly of fat, exercise may be unsafe. In the latter, massage and passive movements should be employed until better muscular tone is developed. The heart must be watched closely. It is often weakened by fatty deposits, resulting in dilatation.

The Turkish and steam baths are the standby of many, but these at best but remove some of the moisture from the body, the

weight loss representing but a small fraction of tissue waste. The electric light bath, however, greatly increases the breaking down of tissue, and as these are less severe on the heart, they are efficient in weight reduction.

Where there is a disturbance of the thyroid gland, extracts of the gland are often effective in reducing the weight, but this must always be administered under the direction of a physician, as dangerous symptoms may arise.

The normal figure is well rounded but not fat. There should be no bulging abdomen, double chin, or rolls of puffy tissue filling out the clothes to the bursting point. Nor should the vital organs be oppressed and smothered by encompassing masses of fat. Enough fat to cover the muscles smoothly and evenly and to serve as a protection and support to organs is sufficient. More is an encumbrance. The athletic figure is the ideal. Not the massiveness of overdevelopment, but the trimness of the supple, well exercised body. Such a body is capable of mental and physical work impossible to the weakened, diseased, encumbered body of the overfat.

Some fat people, who have not yet reached the breaking-down point, think their plumpness is an expression of health. We remember one such, long since called to his fathers, who advised me to overcome my leanness by drinking a couple of bottles of porter every day as he was then doing. "You can see how healthy it is making me," said he. "I weigh nearly two hundred now." "Come out on the road for a ten-mile hike," I replied, "and I will think about it." Needless to say, my challenge was not accepted, for the appearance of health was but the covering of the disintegrating interior that was so soon to bring my friend to his grave—a victim of heart and kidney disease.

Many skinny people admire and envy fat people, in the mistaken idea that the high-colored complexion and bulky figure signify health. Many strive with all their energy to reach proportions that had better not be reached if health is to be retained. How often are we shocked with the sudden taking-off of some friend or perhaps a public man in the prime of life and at the height of his career, big in mind and fat of body, considered in perfect health up to the hour of his death! When will deluded mortals learn that bigness and fat, and redness of countenance signify not health—but disease!

Although some brilliant-minded men are stout, it is more often the lean that prolong their powers of mind and body to old age, and who can accomplish prodigious amounts of work. The farmers used to say, "A lean horse for a long pull." Leanness

usually tends to clearness and sharpness of intellect, stoutness to mental dullness. As Shakespeare makes Cæsar say of the conspiring Cassius:

> "Yon Cassius has a lean and hungry look.
> He thinks too much. Such men are dangerous."

Were we conducting an insurance company we would refuse as a poor risk anyone who had allowed his weight to increase after reaching the age of forty, and would reëxamine all policy holders who had. There are very few fat old men. When a man allows himself to become fat after middle life it is but the beginning of the end.

After all, weight reduction is more a question of diet control than anything else. The eating habit is a hard one to overcome, but successful weight reduction depends upon its being conquered. No matter by what method weight is reduced, if the amount of food is not kept down to the minimum, the weight will surely return. This is the reason we put more stress on the amount of food than upon the kind. One cannot always pick out the particular kind of food that will prevent increase in weight, but one can always limit the amount. If your digestion is so good that even a little food makes you fat, why not spare your stomach still more, and eat even less? Such a digestive apparatus will serve one to an extreme old age if taken care of, but if it is used to fatten up the body it usually breaks down along with the other organs at about middle life. Why not "eat up" your store of body fat and give your stomach a long needed rest?

PARALYSIS

IN November, 1916, paralysis skewed my mouth, thickened my speech and badly lamed my left side. Now I have control of my members so I count myself perhaps eighty-five per cent whole. For one well along in the sixties that is considered good and I expect no recurrence. In the right hands from the first, recovery might well have been ninety or ninety-five per cent. Possibly my gropings for restoration may help others. I recount the high spots only.

I say into the right hands advisedly; not that I did not at once seek help. As soon as able, with wife and son as caretakers, I was off to California, and with doctors, masseurs, osteopaths, naturopaths, etc., started in to reawaken the dormant nerves. Included were sanitarium treatments for several months at two places and in general, the keeping up of bodily manipulations until the spring of 1919. By that time I learned to do for myself more and better than any manipulator.

First and last, I had five examinations, diagnoses and reports, some, it must be admitted, rather perfunctory. The first showed teeth roots infected, so they were all removed, including extensive and expensive bridge work. We had expert advice galore all along on diet, exercise and health-seeking in all its branches. We pored over health books and magazines. Now, what is the outcome of the whole matter?

We are average people with possibly the usual experiences. Lowell says, "I know not how it is with other folks whom I but guess deciphering myself." But he figures about right. The *we* above is not in the editorial sense. My devoted wife had for years a troublesome alimentary canal. Indigestion, constipation and attendant aches and pains were well-nigh constant despite doctors' drugs. It is good to report her improvement also. The same regimen and advisers helped her.

According to quotations, Hippocrates stressed well-selected food and proper exercises more than the few simples known to him. Present-day get-rich-quick dosers, dopesters and cure-alls are degenerates. They claim him as father and are right, in a way. But the family name should now begin *Hy* and drop one *p* and change *a* to *i*.

For example, I was advised by one M.D. in good standing when just up a little and leaving, "If you see anything good to eat, Brown, grab it." He told my son I would likely die within a year and might as well "eat, drink and be merry." Very comforting and reassuring to the dear ones! Had I done so, I would have fulfilled the prediction. As it was, I made my helpmeet no end of trouble for a time by *grabbing* and quoting Dr. X. My purveyor and mentor knew better. She was sensible, consistent and careful, stuck to duty and hewed to the line. She was like Chaucer's good priest, of whom he says:

"Wyd was his parisshe and housen fer asonder,
But he lafte nat for reyn ne thonder . . .
He made his calls just the same.

"Christes loore, and his apostles twelve,
He taughte, but first he folwd it hymselve."

One of our most esteemed later counselors told us if we took the word of a half dozen food sharps we'd soon starve. They are nothing, if not original in tabooing this, that and the other Test by reason and experience. One needs a strong will and a strong *won't* not to break over. He's apt to give himself the benefit of a doubt. He must be a Daniel and then some not to defile himself with the king's meat. Like Daniel he may "purpose in his heart not to," but it is like getting the body up on a cold morning, with an alarm clock. "The spirit is willing but the flesh is weak." Meat smells so good in the cooking and tastes so good in the eating, small wonder we tread the primrose path of dalliance to surfeit on the flesh pots of Egypt. However, we do once or twice a week eat lighter animal flesh or fish. Small fish are recommended as less cannibalistic, but that may be a theosophic or Buddhistic notion only.

I was early very properly advised as to moderation in work, play, eating, exercise, social enjoyment, dramas, etc., etc., and to be cheery. Further, to eschew liquids. No water whatever. A glass of pure orange juice or its equivalent in grapes or like juicy fruit in season, and a glass of Bulgarian or other milk constitute the morning meal and only drink for the twenty-four hours. The remaining liquid necessary to the vital processes comes from cooked succulent vegetables at one meal and from raw salads, lettuce, cress, celery, onions, romaine, sorrel, parsley, grated carrot, turnip, etc., at the other. From that source it is pure, heaven's own distillate, and moreover a softener; unlike

the dirty water which makes up more than half the bulk of meat. In red-hot weather, when a luscious melon or a water cooler is the most tempting thing on earth, use a little lemon with equal parts of water. It is good to start the day thus also, gargling some before swallowing. Citrus fruit juices are changed in digestion and contrary to general belief do not acidify. They are wholly beneficent. Eternal vigilance is the price of liberty from the ills that flesh is heir to, but it is easy when one feels he is on the right track. Even fasting is not hard—for my wife. I am not so strict a Pharisee but can forbear when occasion demands, like starving a cold, for example, one prerequisite to a "soon-over."

The easier mat or bed exercises of Bennett and Macfadden and light calisthenics are useful. The paralytic should *fool* with himself much. Learn or develop proper exercises for each muscle and do them over and over. Always stop short of severe fatigue and don't *thump* the heart. Avoid strenuous trunk movements. Walk much and breathe deeply and rhythmically. Fill lungs to utmost while taking four steps, hold during eight steps and expel through eight. It will soon become second nature, and will not be noticed by others. Exercises like grimaces, head rollings and contortions are better done in private. Artificial exercise by masseur, osteopath and chiropractor is of value when you are helpless. They reach the purpose and may be indulged in, if desired, after partial recovery. But the patient himself should carefully note just what they do and go them one better on his own hook. He should supplement if not supplant. In the open, under cheery surroundings, light work for a short day is a blessing.

If one suspects sclerosis, remember at once the ounce of prevention. Drop everything, if need be, and get back to normal. Don't wait till resiliency is gone and arteries like a clay-pipe stem. The ounce to the pound, like Bryan's formula, is sixteen to one only. In this connection, it should be sixty to one, or even like the injunction on forgiveness seventy times seven. Before the break comes is the time. It is painfully slow to train the end nerves properly to function and take the place of the mass of brain cells atrophied by the escaped blood, but they are all that are left.

Maybe the medics ought not to be too much blamed. But without so much as a look, doctor after doctor gave me prescription after prescription for which I gave plunks and more plunks.

We are now mainly drugless. *Naturopath* does not appeal to me. It is an ill-sounding conglomerate from two tongues, itself an offense. Drugless Doctor is better, but Nature Healer seems more expressive and ought to imply no prejudice. Speed the day when there are no more *old* schools.

PIMPLES

THE question is frequently and anxiously asked: "What can be done about pimples?"

They can be eradicated, and in most instances this can be accomplished in a few weeks. The same is true of blackheads.

Acne is an inflammation involving the sebaceous glands, which lubricate the skin. As a result of this inflammation we have tubercles, papules, pustules and redness. The tubercles and papules roughen the skin, and they can be felt at times when they are not seen. The pustules are the common disfiguring pimples, which come to the surface and contain pus. This is the acne of youth, the acne common between the ages of twelve and thirty, though it is seen in those under twelve and in those who are over thirty.

Acne usually occurs on the face, but it is not at all uncommon on the chest and the back.

The blackheads accompany bad cases of pimples. They are due to the coarsening of the skin so that the opening of the sebaceous ducts grow larger and then dust easily gathers there and forms a small dark plug. Or else there is decomposition of the contents of the sebaceous ducts, which turn dark and disfigure the face. In a normal skin the sebum, or skin lubricant, is fed onto the surface at such a rate that there can be no accumulation of discolored waste in the little tubes. In acne this automatic feeding is interfered with, and hence the blackheads.

Many professional men believe that pimples are due to bacteria. There are plenty of bacteria present, but the bacteria are the result, not the cause, of the perversion. However, if it pleases anyone to talk of the causative staphylococcus, or he microbacillus of seborrhea, so let it be. But it doesn't mean anything so far as cure is concerned.

Pimples are a filth disease. They are caused by bad blood. The bad blood is caused chiefly by digestive wrongs. During the youthful years the appetite is keen, and it is the courting age. There is no other food which so quickly clogs the liver and fouls the blood stream, when eaten in large quantities, as chocolates.

They are a heavy, rich food, containing much oil and sugar. They should not be eaten between meals. When eaten, they should be treated as a nourishing, concentrated food, and should either form the main part of the meal, or else one or two pieces may be eaten as dessert.

Fried foods and all foods that are the result of oily or fatty cooking, such as greasy gravies thickened with flour or starch, are great aids in producing pimples. Overeating is another prominent cause, and so is undermasticating. Excessive quantities of sweets, such as syrups, sugars, jams, jellies and preserves are another prominent causative factor. Young people are prone to indulge in sweetened drinks, ice cream and other dainties between meals, and this results in overeating, deranged digestion and impure blood. The impurities are so great in quantity that the ordinary organs of excretion—skin, kidneys, intestines and lungs—working in the normal, ordinary way are not sufficient to cope with them, and then the skin begins to work in an extraordinary way. The excessive impurities, among which too much acid is nearly always found, first irritate the skin, and then inflame it. And one form of inflamed skin is common pimples, or acne vulgaris—and surely pimples are vulgar. And they are filthy. And they advertise unclean blood, and poor digestion, and very often constipation. What young persons want to go down street having knowing people think of them as the filthy-blooded Miss Blank or the foul-intestined Mr. Blink?

In the fall of 1919 three men came under observation at the same time. One was a Minnesota farmer, the second was an Ohio coal worker, the third was an office man in Manitoba. The Canadian was over forty years old but he had heavy crops of pimples on face, chest and back. Yes, people past thirty do have pimples.

One might say that it is foolish for men to spend time and money to get rid of pimples. But it is very wise, because the pimples are an indication that the body is suffering from autointoxication, in other words, self-induced systemic poisoning. Suppose the pimples should disappear while the living methods remained about the same, what would happen? In the course of time another illness due to hyperacidity and autointoxication would appear. It might be rheumatism, hardening of the arteries, heart disease, Bright's disease, diabetes, neuritis, or almost any other chronic disorder. In learning to live pimple-free, these men learn how to live in good health. If we correct the small disorders, no great ones can develop.

To finish the story, these men were taught to eat and drink correctly and they got rid of the pimples in a few weeks. The gentleman from Manitoba was as much surprised as he was delighted for he had been troubled with crops of pimples for over thirty years.

Miss McC. was about thirty years old and had had pimples since she was fifteen and they gave no indication of disappearing.

She had spent a fortune on her face without lasting results. Her face shone so and was so pimply that she had become despondent about it and refused to leave the house during daylight hours, and she would see only her old friends. Because she was housed so much she had grown rather flabby and lazy. Pimples were no joke to her, for she had had her face treated surgically, with the electric cautery, with X-rays, also with carbolic acid. The antiseptic powders, ointments and lotions she had employed were legion. She said that she "would do anything" to clear up her face.

So for about three weeks she had absolutely nothing to eat except juicy fresh fruits without sugar, and cooked and raw succulent vegetables that had no dressing except a little salt and some juice of lemons, or grapefruit, or oranges. She was instructed to take gentle exercises and much deep breathing while on her fruit-vegetable diet, and to keep the large intestines clear of waste.

She had no more new pimples after the third week. Her flushed face paled, and she gradually regained a fair complexion. Her old pimples and the severe treatment left many scars, and her face never will be just right, but she is no longer ashamed of it. She has become cheerful again and has taken her rightful place in society.

She was instructed to give her body good care, including exercise, and she was told how to eat so as to build good blood. She had as a part of her menu plenty of fresh fruits and fresh vegetables every day, foods rich in vitamines, nucleins, and the refreshing mineral salts that are necessary for keeping the blood pure.

The writer has not seen a single failure where the individual was enough in earnest to get down to business. Large scars tend to remain, but the small scars formed by the pimples that do not come to the surface, or by moderate sized surface pimples, generally grow smaller and smaller until they are invisible at ordinary distances. Sometimes the treatment has been so severe that the surface has been burned by chemicals or the

cautery, and this disfigurement will probably remain. But the red and angry coloration disappears.

In acne vulgaris the chief thing is to eat and drink right. Too rich foods, coffee, tea, an oversupply of food, too much animal food, frying and other greasy cooking, pickles, preserves, an oversupply of white sugar and candies, too fast eating with undermastication, and constipation are some of the most potent makers of pimples. Overcome these causes and the results—the pimples—vanish.

There is a good local treatment that is well worth knowing: Wash the face gently but thoroughly with a good soap and hot water; then let both the hot water and the cold water run at the same time; dash hot water on the face, then dash cold water on the face, and alternate this way at least a dozen times. If you are going to remain indoors it matters not what kind of water you end with, but if going into the cold air apply cold water to the face last, for at least a minute, and then dry with a soft towel.

The face should never be vigorously massaged, unless the individual cares to have it become stringy; the same is true of the throat. A pimply face can be gently massaged, but the alternate douching with hot and cold water is better. The blackheads can be pressed or rolled or squeezed so that the sebum with its dirty point will come out. Sometimes when the pimples are large and full of pus and sebaceous matter it is best to open them, but this surgery is not a cure—it is palliation.

The cure comes through the right care of the body, which builds blood of such fine quality that it cannot produce pimples or other forms of corruption within the system. This kind of pimple cure makes the whole body healthy and prevents the development of other diseases.

There is another form of pimples that is called acne rosacea. It is a rosy condition that is not at all decorative. It makes a "blossom" of one's nose. It occurs mostly in adults past thirty-five. Men are more subject to it than women. Perhaps it will grow less common now that prohibition is the law of the land, for alcohol is one of the prominent causes.

Tea, coffee, greasy food, alcohol, overeating, indigestion (which is a result of wrong eating), laziness, bad air, and the habits of a sybarite are the chief causes of this trouble. It is always the sign of some kind of intemperance, but not necessarily of the kind that bears a social stigma. Many useful citizens have been afflicted.

It is often caused by the manufacture of alcohol and vinegar within the human body. Very few realize it when they are perambulating stills, producing alcohol and acetic acid. So it happens that good women, members of the church and even temperance society members have noses to match those that are standing signs of liquor addiction. Starchy foods and sweet foods when eaten to excess have a strong tendency to turn into alcohol and vinegar in the stomach and intestines, so we do not have to suspect lovely ladies with red noses of being secret drinkers.

Acne rosacea starts as a blush; if the living habits continue the same, this blush grows deeper and deeper until the face becomes badly discolored, especially after physical exertion, change of temperature, or emotional excitement. Later on the complexion coarsens, and the surface blood vessels of the face enlarge and thicken, and then the veins are easily seen. In the next stage the skin grows thick, often bunching up and becoming bulbous. The nose is a favorite seat for this, and it usually occurs in elderly men who have freely indulged their appetites and passions.

The question is, what can be done? If it is taken fairly early the condition can be eradicated through correct living.

A business man aged forty-seven came under observation. His face was livid. He had spent a fortune on his face, being treated in the approved way—X-ray, electric cautery, strong chemicals and some surgery. But nobody had told him to keep himself physically fit. His face was badly scarred, and he had patches of fibrin formation where there should be living skin. This gentleman was placed on a diet almost exclusively vegetable, was ordered to exercise and keep his intestinal tract clean. He was under supervision for two months and the pimples had all disappeared by this time, and the blush was gone. He will never have any more acute trouble if he takes care of himself, but he will have a scarred face so long as he lives. However, he is happy about it, for people do not turn around and stare at him any more. Incidentally, his health is vastly improved.

One with these disfigurements should live largely on melons, fresh fruits, fresh vegetables, berries, green corn, and only a moderate amount of meat, milk, bread and potatoes.

But when the skin has become greatly thickened and there is a great fibrous overgrowth—when a big bulbous nose has developed—it is most prudent to promise nothing whatever.

Even then the general health can be improved through hygienic living, and especially through correct eating and drinking.

Pimples are a filth disease—a sign of internal decay. Get rid of the internal dirt and the pimples will grow discouraged and sorrowfully depart, leaving you joyous behind.

The reader is referred to page 176 for directions for taking an effective sweat bath. While sun baths may apparently temporarily increase skin eruptions, this result is merely through the increased activity of the skin's eliminative function. If continued, these sun baths will help to produce smooth velvety skin, when the toxins producing the pimples have been eliminated.

PNEUMONIA

PNEUMONIA has swept over the land like a destroying angel.

Snow and biting frost have been its accompaniment. In the military camps, in the homes of rich and poor alike, it has left death in its trail.

And every death from the disease, with an occasional rare exception, has been preventable. Anyway that is my opinion.

I have a horror of dogmatism. The biggest fool is the man who knows it all. He cannot be taught anything. He is beyond hope. But in connection with the treatment of pneumonia I have a few firm convictions that I would like to present.

I have personally treated a few thousand patients suffering from all sorts of diseases, from stomach ache to cancer, and through my literature, I have treated indirectly a few hundred thousand more. Therefore I feel I am entitled to speak with some authority, and you are warned in advance that my statements may smack of dogmatism; but they are not intended so to do. It is simply my manner of expressing a belief that has taken firm root in my mind.

Stripped of all its technical terms and the mystery associated with such language, pneumonia is a disease of the alimentary canal, manifested principally in the inflammation of the membranous tissues of the lungs and the elimination of pus therefrom. It is usually due to overfeeding, underfeeding, or improper feeding.

The cause of the disease, in short, is to be found in the stomach and intestines.

It may result from lowered vitality caused by dietetic errors, or from defects of assimilation due to prolonged exposure to cold, or to other depressing influences.

But with few exceptions pneumonia comes indirectly from overfeeding or from alcoholic stimulation associated with eating beyond the body's requirements.

The exposure to which the disease is commonly attributed is an incidental cause, unless it is so prolonged as to affect the assimilative functions.

When pneumonia develops, the body is simply reeking with

poisons. The tissues are filled with these dangerous elements. The remedy is to accelerate the vital activities associated with the eliminative functions, and every mouthful of nourishment, liquid or solid, given to the patient in the acute stages of the disease tends to defeat this end and adds to the seriousness of the condition.

The tissues of the lungs are impregnated with impurities ultimately seen in the form of exuding pus, or phlegm, that is coughed up in the final stages of the disease.

Pain, inflammation, and swelling, are associated with the first and most dangerous period of the disease, and it is from errors in the treatment of the disease in this stage that death results in practically every instance.

In the allopathic school, the mortality record for this disease is highest. Homeopathic methods lessen its dangers. But the physicians who use drugless methods and depend upon the stimulation of vital activities rarely lose a pneumonia patient. And it is for the benefit of those who believe in this treatment that I am presenting some of its fundamental principles.

A description of the old-time allopathic methods of treating pneumonia would shock the average modern physician. It must have taken the vitality of a catamount to have maintained life under such a method of treatment. And the modern allopathic school, with all its changes, is still open to severe criticism. Many up-to-date physicians have veered away from "regular" methods in the treatment of this disease. In other words, allopaths and homeopaths and eclectics are turning aside from the teachings of their schools and are using methods which they have learned from experience and from other sources.

Taken in the first stages, pneumonia is not a serious disease, provided it is treated by the stimulation of vital activities necessary to remove the cause.

The fundamental principles of such treatment are simple:

Absolutely no nourishment must be taken by the patient during the acute stages of the disease. If there is severe inflammation of the throat, two or three glasses of water as hot as can be taken, in which a teaspoonful of ordinary table salt has been dissolved, should be drunk.

The salt and water, besides acting as an antiseptic, furnishes a satisfactory cathartic, usually very valuable in this disease. One glass of this hot water and salt could be taken once or twice daily, at least during the acute stages of the complaint, if required for cathartic purposes.

The patient should also be encouraged to take quantities of

hot water which, if desired, can be flavored with salt, lemon juice, orange juice, or honey, as the taste may dictate. Lemon juice, or orange juice, is a valuable antiseptic agent for stomach and throat.

One of the first remedial agents that must be used in a serious case of pneumonia is a chest and abdominal pack as hot as can be borne. In other words, the body must be swathed from hips to armpits with bath towels that have been wrung out of boiling water. Don't make the serious mistake of putting the pack on warm. It must be HOT. And the cloth used, linen by preference, must be heavy enough to retain its warmth for a considerable period. This hydrotherapeutic measure will bring immediate relief even at the crisis of the disease, no matter how serious the case may be.

But above all in importance in the treatment of this malady is pure open air. The patient's head must be as near as possible to an open window. No matter how cold the atmosphere, this rule must always be observed. There should be no exception. Keep your patient warm with sufficient covering, or with hot-water bottles, but see that he breathes the outdoor air.

Three things, in short, are immediately necessary in the treatment of this disease:

First: Fresh outdoor air.

Second: Two or three glasses of hot salt and water to act as an antiseptic to throat and stomach and to facilitate alimentary activity.

Third: A hot abdominal and chest pack, as previously described.

Usually a hot abdominal pack and the salt and water advised will bring about satisfactory alimentary activity. Enemas in some instances are inclined to leave the patient with a feeling of exhaustion, and if the patient's vitality is low, it might be dangerous.

After these measures have been applied, the patient can be allowed to rest easily with an absolute and serene confidence in the outcome.

In fact, many cases recover so quickly with the adoption of a régime of this sort that the average physician will inform you that the patient did not have pneumonia. Where weeks are ordinarily required for recovery from the disease, days suffice when the treatment described is used. In many instances the disease can be nipped in the bud. In other words, the accumulation of poisons that are the cause of the trouble can be

eliminated so quickly that the disease never comes on to the crisis.

If these very simple remedies were applied in every case of pneumonia when the symptoms of the disease *first* manifest themselves, I believe it is no exaggeration to say that the mortality record would be almost nil. For, to begin with, you have to have a certain amount of vitality in order to contract a disease like pneumonia, and if this vital strength is properly directed in renovating the body there should be little or no danger of death.

After the initial treatment outlined above has been carried out, the patient should be encouraged each day thereafter to take as much liquid as possible. This can be hot or cold water, and if preferred, it can be flavored with salt, lemon or orange juice, or honey.

The hot pack can be given once or twice a day, depending upon the severity of the symptoms. The patient may be allowed to remain in it an hour on each occasion, or if he goes to sleep, he can remain in it until he awakes.

But, remember: No food of any kind previous to the crisis of the disease. Even when the patient begins to crave nourishment it should be given in liquid form. Starches and all foods which are liable to cause fermentation should be religiously avoided. Buttermilk, milk, acid fruits, or fresh vegetables would probably be the safest foods to use.

Thousands upon thousands of pneumonia patients have gone to their graves because of the lack of the simple treatment outlined above.

Every conscientious physician is advised to try these suggestions. I will stake my life against the life of any patient in whose case these plain suggestions are carefully followed.

If the disease is accompanied by high fever cold packs can be used instead of hot packs, but usually the hot packs are safer, and in all instances where the cold packs are applied, the greatest possible caution must be exercised in maintaining the bodily warmth of the patient. Hot water bottles at feet, hips and legs, when one is using the cold pack, are effective for this purpose. When one is suffering from high fever, this excess temperature is performing a beneficent purpose. It is burning out the poisons of the body. It is facilitating the activity of the depurating organs, and when you interfere with this natural process, serious harm may result.

No pneumonia patient was ever benefited by drugging or being shielded from fresh air.

The proper way to treat this disease is to facilitate the natural activities of the body by every possible means, and the simple remedies suggested herein are so wonderfully effective that the result will amaze anyone who finds an opportunity to test them.

The suggestions given are merely a rough outline of the most important requirements in the treatment of this serious disease. They are not presented as a guide to those who have no previous knowledge of the subject, but are given principally with a view to assisting physicians who may not have had opportunities to consider such remedies or to observe their effects, and as a means of assisting our readers in the selection of a physician who may be sufficiently broad-minded to test them. In the absence of a satisfactory physician, they might be used advantageously by anyone, but for the detailed treatment of a disease of this nature, one should possess a vast amount of knowledge that could not possibly be presented in a short article of this kind. In order to intelligently handle a case of pneumonia, one should be able to consider the character of treatment in connection with the condition of the pulse, temperature and respiration and the general vital status of the patient, and to obtain such knowledge usually requires years of careful study. Therefore, do not allow your enthusiasm for these general principles to carry you away to such an extent that you consider yourself competent to handle a case of pneumonia armed with this knowledge alone.

The main object of this publication is to convert physicians who are broad-minded enough to search for the truth, and this can be better accomplished by giving their patients, the general public, such knowledge of curative methods that they may be able to insist upon securing treatment which is based on an intelligent consideration of the source as well as the symptoms of the disease to be treated.

RHEUMATISM

THERE are two main types of "Rheumatism"—articular rheumatism or that affecting the joints, and muscular rheumatism. Either of these forms may be further subdivided into acute and chronic varieties. The symptoms will vary somewhat in these cases according to the type of rheumatism, but the cause is the same in all of the varieties and the treatment will be the same.

Frequently the pain may be very slight and it may shift from one part of the body to another, or it may be extremely severe and aggravated by the slightest touch or motion. It may be a dull ache, a "grinding" sensation, or a keen stabbing pain. It may be present only on motion, or it may be present fairly constantly. It may be entirely absent at night, or the sleep may be disturbed spasmodically by the relaxation and extension of affected joints as one is on the verge of "dropping off to sleep."

Very frequently toxins producing rheumatism will also produce an infection of the heart muscles or of the valves of the heart, thus producing in time heart disease. The cause of rheumatism is usually a very large amount of toxic materials in the system. These may be from the intestinal tract, from some acute disease, or from a focus or intestion, such as an infected gall-bladder, teeth roots, etc. An unnatural inactivity of the skin is very apt to produce rheumatism. Also a diet that makes the urine highly concentrated so that the kidneys cannot carry off their share of toxic elements may produce the disease. Exhaustion, shock, worry, grief, and such psychological disturbances may upset the chemical balance of the fluids of the body and result in the development of rheumatism.

Can this disease be corrected? We have had a large number of sufferers from rheumatism who have proven that it can be—and that no drug is necessary. Mrs. Kelly was a sufferer from this disease in a severe form. She could not move except on a stretcher. Her knees could not be straightened, neither could her elbows, and her fingers and wrists were twisted.

She was a mere shadow of her former self. Her temper was extremely irritable and she was decidedly unpleasant. This was natural because of the constant pain and the loss of sleep that she had suffered. But before she had finished her ten days of orange juice diet she was a decidedly different woman.

For three months this patient had daily massage, baths with hot applications to the affected joints and muscles, and had the joints carefully manipulated and extended. She received a cold sponge bath and an air bath every day. Twice a week this sponge bath was preceded by a sweat bath. This was given by means of a wet sheet pack.

The diet consisted after the first ten days, of a large variety of fruits and green vegetables with a small amount of whole grain products. Large amounts of water were consumed. At the end of three months the patient was around on two crutches, one month later she used one crutch, another month later she used a single cane, and now she does all of her own house work without crutch or cane and is enjoying comparative health.

One must remember that this was a case of serious involvement of the joints where there was already a decided change in the structure of the joints. The muscles were also decidedly affected.

Another case to prove the value of natural methods of treatment is that of Mr. Dolling, who had had rheumatism of a severe nature for several years. At the time he began the Physical Culture treatment he was sixty-five years of age, very pale and anemic, his shoulders were stooped, his knees bent, and every joint of his body limited in motion. He could walk with two canes, but fairly crept along. He was placed on fruits and vegetables at once and was given alternate hot and cold shower baths and an occasional sweat bath. Within ten weeks he was walking several miles a day, had discarded one cane and using the other merely to feel safe, though rarely rested upon it. His color improved greatly, his skin lost its leathery appearance, his shoulders straightened, he could extend his knees, and made the statement that he felt twenty-five years younger—and looked it.

If such an improvement could be established in cases so severe as these it is easy to imagine a comparatively quick response in cases less severely affected.

RUPTURE

THERE are various kinds of hernia. There is even hernia located in the head. But the most common form of hernia is abdominal, and that is the kind that will be discussed in this article.

Abdominal hernia is an abnormal protrusion of some of the abdominal contents through a weakened portion of the abdominal wall.

Hernia is common in adult life, but, strange to relate, most of the adults that develop hernia did not have it in youth. After full maturity hernia usually develops because of poor general health, obesity, violence, and abuse of the body in general. Anything that helps to decrease the individual's stock of health is apt to produce hernia. Poor health weakens the abdominal wall, and as a result some part easily gives way.

The abdominal wall is composed of many different layers of skin, fat, muscles and membranes. In a healthy human being this wall is strong and capable of serving every normal purpose, but when the health is poor the abdominal wall deteriorates with the rest of the body; then physical defects may develop, and the usual result is rupture.

The groin is the weakest part of the abdominal wall, and for this reason ruptures occur here in adult life more frequently than elsewhere.

On account of the difference in the structure of the abdominal wall in the two sexes, men are far more subject to hernia than are women. In the male groin the external and the internal rings are quite vulnerable. These rings are openings which normally do not allow of the passage of the peritoneum or the intestines, but if the abdominal structures deteriorate, or if there is too much gas pressure within the abdomen, or if the individual is subject to violence, these openings may be enlarged so much that they allow of the passage of some of the abdominal structures, and then we have inguinal hernia.

Fat people are very subject to hernia, because obesity is a form of disease in which the muscles and membranes of the body are weakened.

Women often develop hernia during pregnancy, due to the

extra pressure within the abdomen, and also because of the fact that they live up to the old fallacy that a pregnant woman should eat for two.

Even adults make spontaneous recovery from hernia if correct trusses are worn, but the percentage of recoveries is not as great as in children and youths.

A truss should be so fitted that it helps to bring the sides of the hernial opening together.

In the beginning all trusses are a nuisance and inconvenience, but if they are correctly fitted the individual soon becomes so accustomed to them that they cause little or no trouble. The truss should be adjusted in the morning before one rises and it should be taken off in the evening after he goes to bed.

During the night either a lighter form of truss or a bandage should be worn, so as to prevent any protrusion of the hernial tumor during the night. If a spring truss is used the springs should not be made excessively strong, because then the tendency is to make the hernial opening larger, and then the rupture grows worse.

The patient suffering with hernia should push his truss pad aside at least once a day and thoroughly sponge off the spot where the pad fits. Then he should dry the skin very well. At least twice a day he should use talcum powder to dust the skin under the pad. The pad itself should be kept clean.

In cases of femoral hernia it is very difficult to fit a truss that will prevent the hernial tumor from forming. In inguinal hernia it is not so difficult.

To show how hard it is for a layman to know exactly what to do, even in cases of inguinal hernia, it is well to state that there are two chief forms of this kind of rupture, the oblique and the direct. In a case of oblique hernia the pad of the truss should fit over the internal ring. In case of direct inguinal hernia the pad of the truss should fit over the external abdominal ring.

Now, how many readers are there, do you suppose, who know where to locate the external and the internal rings in the groin?

I have seen cases of hernia in adults where properly fitted trusses have finally brought about spontaneous healing. I have also seen numerous cases where these appliances did not produce improvement, but where the individual had to have an operation. In simple hernia the operations are almost invariably successful, if they are performed by competent surgeons.

Unfortunately, during the last thirty years this country has suffered from surgical mania. Where one operation has been nec-

essary ten have been performed. A large amount of this unnecessary surgery has been performed on the abdominal organs. An incision is made through the abdominal wall and unless this wall is properly sewed up there is apt to be surgical hernia.

At present there is a woman under my observation who is suffering from a very large hernia that was produced by an unnecessary operation on the gall bladder. The poor woman has suffered for several years, and she never will be right again until another operation is performed by a competent surgeon to correct the evil effects caused by the unnecessary operation.

Any steady reader of *Physical Culture* knows that it was a near crime to operate on this woman when it was done, because she had a layer of about five inches of fat in the abdominal wall, and in cases like that the wounds heal with great difficulty, and sometimes they do not heal at all.

There is another method of repairing simple ruptures that the writer does not feel himself competent to judge. This is the injection method Doctors who use this method inject an astringent into the tissue surrounding the hernial opening. It may be a remedy containing tannic acid, or it may be a zinc chloride compound. The theory is that this sets up an irritation which produces engorgement, and afterwards formation of fibrous tissue. This fibrous tissue contracts and makes the opening smaller. Sometimes it works effectively.

There is a tendency in later life for all the tissue of the body, including the abdominal wall, to weaken, and if when people reach sixty they do not give themselves good care, they are liable to develop rupture, especially in the groins. And the older the individual, the less likelihood there is of spontaneous healing. If the heart and kidneys and arteries are in bad condition most competent health guides would hesitate to advise an operation. However, if the health is pretty good an operation is the easiest and quickest way out.

Not long ago a gentleman sixty years of age, came under my observation. He had been in bad health for many years, but he wanted to become normal, so he was put on a proper diet, instructed to take gentle exercises, and to give both body and mind the best of care. He did this and his general health improved wonderfully. He recovered from arteriosclerosis with high blood pressure.

He had a weak spot in the groin, and this developed into a rupture. There was no sign that this would heal of itself, so he said that if an operation was safe he wanted to do away with the annoyance of wearing a truss. He was advised that if

he did not take too much anesthetic he could be operated on safely. The operation was performed, and inside of three weeks the wound healed nicely. Now the patient is comfortable and the groin troubles him no more, though he could have worn a well-fitting truss if he had so elected.

There are several forms of hernia that are so serious that it is useless to discuss them in detail here, because if they are not handled expertly they end in death.

Irreducible hernia cannot be replaced within the abdominal cavity and here clumsy handling may do much damage; it may even kill the patient. If a person uses much violence it may cause inflammation, rupture of the intestine, or fatal peritonitis. If the hernia is irreducible, either get a properly fitted appliance to support the tumor, or operate.

Incarcerated hernia is a condition in which the bowel is so pinched that the fecal matter cannot move on, and if enemas, relaxation and hot appliances do not allow the intestines to slip back in the proper place it is necessary to operate, because if the intestine is allowed to be imprisoned for several days, gangrene, followed by death, will probably take place. After a period of incarceration the circulation of the blood is apt to stop in the affected part of the intestine.

In strangulated hernia the passage of fecal matter is prevented and the intestinal circulation of blood is stopped. This means local death of the intestine affected (gangrene), and if surgical interference is not instituted death ends the suffering.

In cases of incarcerated hernia and strangulated hernia the longer one waits the greater the chance of death. If the operation is performed the first day perhaps one patient in ten or twenty may die. If the operation is delayed until the fourth or fifth day more die than recover.

The surgeons have done so much unnecessary cutting that they have gotten themselves into bad repute among many thinking people. However, there is no reason why we should not give the surgeons their due. In hernia, surgery is sometimes the best method of cure.

Exercise is one of the measures that prevents the development of rupture, because through exercise the muscles and the membranes of the body become so strong that they can withstand all the normal demands made on them, and also many of the abnormal ones.

In nearly all chronic ills, exercise aids in effecting a cure. But in most instances discretion must be used, especially in

the beginning. Exercise improves the circulation, and in this way helps to build normal structure in all parts of the body.

As in all diseases and other abnormal conditions so in hernia, the better the circulation the better the chance for spontaneous healing. Exercise will improve the circulation to the area of the hernia. But this is not the main effect of exercise in this condition. Properly performed exercises strengthen the tissues forming the margins of a hernial opening and tend to contract these tissues and draw them together. We have had innumerable cases where this result has been perfect and permanent. Naturally the young respond more satisfactorily than those of fully matured years, especially those of middle life and past. In addition to wearing a properly adjusted truss, special exercises which we call "gravity exercises" are of particular value.

These exercises are taken on a padded table or board which is arranged to slant so that one end is about twenty inches lower than the other. A satisfactory support can be improvised by placing one end of an ironing board on the floor and the other end on the side of a bed or chair. The patient lies with the head down. This position permits the intestines to drop back into place, which allows the muscles a better opportunity to develop in such a way as to hold them there; it also prevents injury to the intestines, which might result if they were caught between the margins of the hernial opening. The feet are held down with a strap around the upper end of the table while performing body-raising movements. The truss is not worn while exercising, as the position above will prevent the intestines from protruding in most cases. If necessary, however, the hand can be used to hold the hernia for a time, until the opening has narrowed. It is important that the hernia never be allowed to protrude and this is especially important during exercise.

In the face up position, raise and lower the legs separately, alternately, and together overhead; swing the legs circularly to the left across the body and down, and the same to the right; then raise the head and shoulders; later raise and lower the body, but do not come quite to a full sitting position; also slightly twist the body to one side or the other and partially raise. In the side-lying position, raise and lower the leg; swing the leg forward and backward; raise and lower the body. In the face-down position, with the body supported on the arms folded under the abdomen, raise and lower the hips. Start with about five minutes of exercise and increase gradually to fifteen or twenty. Follow the exercise with a cold sitz bath for from two to five minutes. Cold cloths may be applied to the hernial area as a

substitute if the sitz is not convenient. Rest from this régime one day per week. It has also been found of value to take a few days' fast or acid fruit diet before beginning the exercises, as this reduces the intra-abdominal pressure and tends to shrink the intestines back toward normal position.

Whether or not the fast or fruit diet is taken it is important in all cases to improve the general health by adhering to a careful diet, also by taking long walks and deep-breathing exercises, using cold baths, and securing plenty of sleep. The diet should contain plenty of fruits and vegetables, using many of them raw. All food should be well masticated, and overeating and constipation should be avoided.

To summarize:

1. Most cases of hernia can be prevented through exercising, breathing, and eating so as to have good health.

2. Most cases of hernia, especially in the young, can be overcome through the wearing of a properly fitted appliance to prevent the enlargement of the hernial opening, together with the use of gravity exercises.

3. Those who cannot recover through the wearing of a mechanical appliance and the use of gravity exercises will either have to continue to wear a truss, or resort to surgical operation. Also they can resort to the injection method of treatment.

4. Those who are debilitated should be very careful about being operated on. They had better get some expert to fit them with correct appliances.

5. Those who have developed hernia should know that this is generally an indication that they have allowed their bodies to become subnormal. Consequently they should get busy and give themselves the best of care.

6. Those who have to be operated on to overcome the hernia should first build up their general health so that the wound will heal more quickly, and so that the tissues will have a better tone and thus make the repair more secure; also to prevent a recurrence.

7. Those who have to wear appliances all their lives should also build up their general health, because in this way they can get their physical structure into such good condition that the defect will not trouble them to any appreciable extent.

SKIN DISEASES

THERE are over a hundred well-defined diseases of the skin and probably no other form of human ailment creates an equal amount of discomfort and irritation, yet none are easier to cure. Many of them are symptoms of some serious disorder such as an infectious disease; or they may be due to the presence of a parasite; or again they may exist as an independent disease.

Skin blotches or pimples are the most prevalent of all ailments of the cuticle. They may appear on any part of the body, but as a rule the face, neck, and chest are chiefly affected. These eruptions of the face are especially common in males between the age of puberty and the time of complete physical development. They are usually due to disorders of the digestive tract.

Acne

SYMPTOMS.—An inflammatory disease, usually chronic. It may consist of several lesions and sometimes a great number. The eruption generally takes the form of a small pale red, bright or dark red pinhead or pea size papule. These papules are usually more numerous on the forehead, chin or lower jaw, in many instances interspersed with blackheads. In many of these cases the skin seems relaxed, thick, dirty and greasy. If a pustular lesion is squeezed, a mixture of pus and sebaceous matter will be expelled. In some cases several lesions will appear at a time, these drying, healing and disappearing while others appear in their place going through the various stages.

There are several forms of skin disease included under the general name of acne, namely: blackheads, pimples, and whiskey nose. While never fatal, they are very annoying and cause an unsightly appearance.

Causes

The disease is a frequent one and the causes are varied. In some cases a parasitic factor is believed to be the cause, but this acts rather as a secondary consideration. Some of the internal factors are digestive disturbances, constipation, menstrual irregularities or other uterine trouble, chlorosis, general

debility and lack of tone in the muscular fibres of the skin. External factors are made up of accumulations in a dusty or dirty atmosphere, lack of cleanliness, infrequent use of soap, or anything which tends to block the gland outlet. Drugs are a very important cause. The "bromo" proprietary headache medicines are often a cause, likewise the advertised "blood purifiers" in the spring which contain potassium iodide, also irritative soaps and especially those containing tar or its derivatives. The most easily demonstrated causes which the patients themselves recognized are constitutional and digestive disturbances. Night or day indulgence in indigestible foods will often provoke a fresh out-cropping. Fermentative dyspepsia and the dilation of the stomach especially are factors. Excessive use of tea, coffee, and tobacco will frequently produce the predisposing circulatory weakness. Acne attacks those of both sexes between the ages of thirteen and thirty, among the rich and poor, especially those of light complexions and leading a sedentary life.

Eczema

An inflammatory condition of the skin and a consequence of dietetic indiscretion. It is sometimes erroneously attributed to nervous disorders. The eruption appears in many forms—simple inflammatory redness, scales, pustules, or harshness and dryness of the skin with the formation of fissures, crusts, and scales. Like all other skin ailments it is easily cured by an alteration in the sufferer's mode of life along eliminative lines.

TREATMENT.—An eruptive disease of the skin is a manifestation of an unwholesome condition of the blood that can be overcome by eliminating the toxic principles which have obtained lodgment in the body, and by improving the circulation. The excretory organs including the pores of the skin must be stimulated. The most effective method of bringing about this action of the pores is by the use of wet packs, hot or cold, which may be alternated, the cold being applied last. In case such a disease has brought about a hardened and rough condition of the skin, the application of olive oil will be found to be of advantage. Air baths and sun baths will be found to be productive of much benefit. Dry friction baths are to be recommended in nearly all types of this disease, except where they cause irritation, inflammation or general discomfort.

Steam baths are particularly valuable as a means of inducing copious perspiration and active elimination. In the absence of a steam cabinet bath, a sweat bath may be improvised by means

of a hot foot bath in a warm room, the patient being wrapped in a wet blanket while he drinks frequently of hot water or hot lemonade. This treatment should be followed by a cold sponge bath or cold douche, but care must be taken that the body does not become chilled.

Many people find it difficult to secure proper steam baths, and a bath that will produce as satisfactory results in most cases is the tub bath. What is desired is to secure a complete and fairly prolonged opening of the skin pores, that as many as possible of the systemic toxins can be expelled from the system. In taking the tub bath, the water should first be merely warm; after ten minutes or so the temperature may be gradually increased until by the end of twenty minutes more the bath will be fairly hot. The hot bath should be continued for another twenty to thirty minutes so that the face is well covered with perspiration. Every ten or fifteen minutes a glass of hot water should be drunk. One may go directly from this bath to bed, but if it is necessary to remain up the bath should be followed by a quick cold splash, sponge, or shower to the entire body. Reaction from the cold must be thorough within a minute or so. Drying should be by patting, or at least not by vigorous friction. This perspiration bath, whether by tub or steam or electric cabinet or by a blanket pack, or in some cases by vigorous exercise, is excellent for eczema, psoriasis, and acne particularly, but will help in certain other skin diseases also.

All forms of constitutional treatment for building up vitality and increasing the vigor of the functions and excretory organs will, of course, prove beneficial; by the adoption of such treatment, the impurities of the blood will be eliminated through natural channels instead of by skin eruptions.

In a great many cases, constipation is the cause of this class of maladies; it is necessary, therefore, to take steps to insure the regular action of the bowels. Exercise and diet will help in this direction, but it may also be well to use enemas. For detailed instructions of the treatment for constipation the reader is referred to that subject, which should be carefully read and faithfully followed.

SORE THROAT

A SORE throat! What memories of goose-grease, kerosene oil, slippery-elm tea, lard and turpentine, gargles, and blisters, it brings to mind! For, until we learned better, we indulged in all the privileges and chastisements of sore throat, nearly every winter and spring. The odor of lard and turpentine, for that was the favorite family remedy, was carried around with us all winter. Another faithful remedy was kerosene. Such kerosene they had thirty years ago! The kind used on us would take the bark off a tree. Never use kerosene for your sore throat unless you can find some with the fire taken out.

Another popular remedy, still sometimes prescribed, is the long black stocking wound around the neck at bed-time. We don't think much of this either, for, to be effective, the prescription should read—"a stocking which has been worn a few days," and—well—we never liked the medicine.

The peculiarity about our sore throat was that when we did the things we were told would give us a sore throat, we usually escaped, as, for instance, when we went fishing and hunting, got our feet wet and walked around all day in wet clothes, and skipped most of our meals, we had never an ache or pain, but when we obeyed orders and stayed indoors when it rained and snowed, wore our rubbers and neck-muffler, and ate three farmer-sized meals, we were very likely to go to bed with a sore throat, and the lard and turps would soon be melting.

We remember once going on a fishing trip with as severe a sore throat and cold as it was possible to have and not be in bed. According to our usual custom on such occasions we did not take along blankets or other camping material, expecting to rely upon "haystack comfort" at night. The weather turned cold and we could find no haystack, so our best that night was a fire and a "corduroy," which consists of sticks laid side by side on the ground. In the morning our sore throat and cold was entirely gone. Get it out of your head that exposure is a fundamental cause of sore throat.

A "sore throat" is a symptom associated with an inflammation of the mucous membrane of the pharynx, including the tonsils and adjacent structures, and usually extending to the larynx

and retro-nasal passages. The chief complaint is pain and difficulty in swallowing and, upon the formation of exudate, a constant desire to clear the throat. A rise in temperature usually accompanies the soreness, and there is huskiness and perhaps loss of voice. The tonsils and neck glands, as well as the tissues of the neck become swollen and may interfere with respiration. These are the essential symptoms of "sore throat," but it must be remembered that the condition is often only the initial symptom of several of the most severe diseases of childhood and adult age, such as diphtheria, tonsillitis, scarlet-fever, measles, German measles, and occasionally gastric disturbances.

As our intention is to teach you how to avoid a sore throat and how to most quickly relieve it, we will not go into the diagnosis of the many diseases in which sore throat is a symptom. That is a matter for your physician if you should be obliged to call him. If you will act quickly and persistently, many of the diseases will not advance beyond the sore throat stage, as your treatment will have removed the cause of your illness. We have aborted many cases of acute illness before the return of the laboratory report. Had we waited to make a diagnosis some of them might not have recovered.

What is the cause of a sore throat? Some believe it is due to invasion by bacteria. There are bacteria associated with sore throat certainly, but they are probably there because the throat is already sore. In other words that particular part of our anatomy is for the time being a good culture medium for streptococci, staphylococci, diphtheria bacilli, or any other bacterial family in need of a residence with all modern improvements, heat, water and food furnished free.

But what feeds bacteria? We might answer this question by describing the person usually subject to sore throat. He eats three heavy meals every day, and then some; he may or may not be a smoker and drinker, but if a male adult, usually is; he eats plenty of meat, white bread and other wheat products, potatoes, puddings and pies, and drinks tea, coffee or beer; he lives and works indoors, and take little physical exercise; his house and place of business are overheated, and at the first approach of cold weather, he puts on heavy underwear, and wears it indoors and out no matter what the temperature; he bathes in warm water and scrubs the oil out of his skin with soap; his blood is thick and his circulation is sluggish and the least amount of cold air or water on his skin will give him a chill—he is in fact an ordinary individual following the lines of least resistance. Such an individual is working his organs to the limit, and

especially the organs of elimination. In the mistaken idea that the more material he puts in his body, the stronger will he be and the greater his vital resistance, his blood is filled with organic material which the cells already nourished to repletion, can in no way utilize. The eliminative organs are already working to capacity. It is then the mucous membranes assume eliminative functions. There is a sluggish circulation of the toxin-laden blood, and it may be cold, over work or what not that drives the blood to the center of the body and produces a congestion of the membrane. Some of the blood serum containing in solution organic material, finds its way through the walls of the distended capillaries onto the surface of the throat membranes—and—did any one ever hear of a better culture media for bacteria than blood serum? The office of bacteria in the economy of Nature is, we believe, to change organic material, which is of no further use as organic material, into elemental substances. The substances formed are toxic to the body and when absorbed into the system rapidly produce severe prostration or death, if the body is not able to eliminate them. This the body tries to do and a rise in temperature, or fever, follows, which is the great defense of the system against invasion, and is literally a "burning-up" of the toxins.

The body, then, has, in addition to the toxins of its own generation, those produced by the bacteria. Hence we can see why checking a fever sometimes kills the patient.

Your throat feels sore because the toxins irritate the nerves of sensation in the mucous membrane, and is the natural accompaniment of the elimination of poison from the body.

What is the cure? Let us first tell a little story. Jones moved his family into a perfectly new house, clean inside and out. They took pride in their property and at first kept it scrupulously clean, but gradually developed slovenly habits—they threw their garbage on a pile in the yard, and allowed refuse to collect in the house. When they first moved into their house they were pleased at the absence of flies in the neighborhood, but as soon as they formed their careless habits, the pests arrived in swarms, and soon all the houses in their row (for all of the neighbors, as is the way with humans, soon acquired the bad habits of the Joneses) were afflicted with an epidemic of "flies." Jones consulted a specialist in "flies" and was advised to put screens in the windows of his house and take home a few "fly swatters," which he did, and although the whole family "swatted" until they were tired the house was as thick with the "flies" as before. Another specialist said it was the garbage pile, and ad-

vised that chemicals be used to kill the flies and disinfect the garbage. This was done, but the bad habits of the neighborhood continued and the "flies" persisted. A hygienist was consulted, who at once told Jones that the only cure for "flies" was to clean up the premises and keep them clean. Against the advice and ridicule of the specialists who saw their sales of screens, swatters and chemicals disappearing, they all set to work with shovel and broom, and soap and water, and soon the "flies" were "cured."

So the human body begins life in a fairly healthy condition—as well as our heredity permits—but we are overfed, wrongly fed, overclothed, screened from air, doped and poisoned, we reduce our vital energy by excesses of all kinds, and soon our blood is filled with the "garbage of our tissues." This must be cleaned out, or life can no longer remain in the body, any more than we can stay in a house which has the "flies." If it is not eliminated promptly, it will be food for bacteria, just as garbage which is not kept in a closely covered can is food for flies. Different bacteria develop on different food material and produce different toxins, which the body resists and eliminates in different ways, and thus we have the differently named acute diseases, of which sore throat is one of the symptoms. What matters the name. Flies are flies, no matter whether blue, green or black, house or horse, and they all need the same treatment.

Treatment of a sore throat: (1) Absolutely no food must pass your lips as long as your throat is sore or you have fever. Sometimes the skipping of one meal is sufficient, sometimes days are needed, but no matter. Putting food into a body already filled with more nutriment than can be utilized, and more refuse than can be eliminated, is like throwing more garbage into the yard. In one case it is joy to bacteria and in the other comfort to flies. If you begin to fast early enough serious conditions will not develop. During the influenza epidemic in Chicago, we were able to prevent the development of all cases seen early enough by at once prohibiting food. Food is not needed to "keep up strength," as is commonly taught. Eating to keep up strength, means eating to use up strength.

(2) Get the alimentary canal as clean as possible, as quickly as possible, and keep it so. Take an enema of warm water and see that it does its work. Repeat the enema daily. Next, the whole tract should be swept out by means of a saline cathartic. Take a half bottle of citrated magnesia on the mornings of the first two days you are sick and a wine glassful on each succeeding

day. Remember the liver, that great neutralizer of toxins, is excreting bile, whether you are eating or fasting, directly into the alimentary canal, and an initial cleansing of the tract is not sufficient. It must be done daily.

(3) Take into your system as much water as you can. Swallowing may be painful, but warm or hot water can usually be taken comfortably. Do not be afraid of hot water, even though there is fever. By increasing kidney elimination the cause of fever is reduced. Kidney complications in acute diseases are due to lack of water in the system. Pineapple juice may be added to the water. A mucilaginous drink, such as flaxseed tea, slippery elm water, or acacia, may be taken in glassfuls, as often as desired.

(4) Although air is important, we do not believe in the dictum, "plenty of fresh air," to the extent of the discomfort of the patient. The skin of the patient must be kept warm because we wish to keep the blood at the surface. We would rather say, "have good ventilation in the room, but keep the patient warm."

(5) Shall we rest? Those who are strong, with a good heart, and pulse not too rapid, with no fever, may remain up, and can take exercises for increasing the circulation in the skin, thus helping elimination. When there is a rise of temperature, rest is indicated.

(6) A hot bath followed by a sweat in a blanket is of great value and will sometimes relieve a sore throat overnight. Start with water at body temperature and increase it by adding hot water until it is up to one hundred and five degrees. Place a cold wet towel around the head. If you are going immediately to bed after the bath, well and good, but if not, follow the hot bath with a cold wet rub. If you do not, the blood after the bath will react and congest the deep-lying vessels and the sore throat may become worse. A cold wet sheet pack may also be employed. If the temperature gets up over one hundred and three degrees tepid sponging may be used. This should be done every day, at least twice, regardless of the temperature.

(7) Local applications. A cold pack placed on the skin over any organ reduces congestion in that organ. Since one object in the treatment of all acute conditions is to get the blood to the surface, when we have a sore throat, a cold, wet pack applied around the neck is one of the best measures we know of to reduce swelling and decrease inflammation. Now don't say you have tried it and failed. Few people know how to apply a neck pack. Most people simply wrap a wet towel around the neck, covering with another dry towel and let it go at that. The pack

gets loose and stays cold and of course the sore throat is made worse. A soft linen or cotton cloth must be used, best in a long strip, so that it may be wrapped snugly around the neck, covering the neck well up under the lower jaw. The cloth should be wrung out of cold water so that it does not drip. Cover with a woolen cloth in such manner that no air can reach the wet cloth. It must not be covered with a rubber or mackintosh as free evaporation is necessary. If the sore throat is very severe the pack must be changed every half hour. This means work for somebody, but we know of no more effective measure when the throat is closing up because of swelling of the tonsils and membranes.

About the worst case of septic sore throat we ever saw, had advanced to the condition that breathing was difficult, while swallowing of liquids was quite impossible. Cold packs were applied in the manner described above, every fifteen minutes during one night. In the morning the swelling was gone.

(8) Local antiseptics and gargles. Most people treat a sore throat by thinking only of the local condition and trying to get rid of the uncomfortable sensation. That is all right, and commendable treatment if they at the same time do something to remove the cause or occasion of the soreness. That is the reason we put the constitutional treatment first. It is the most important. But as we usually "swat flies" at the same time we clean up the premises, we will tell you how to relieve the local unpleasantness associated with the complaint. It is all right to prevent the multiplication of and to kill the bacteria which may be in your throat if, at the same time, you remove the material upon which they feed.

Among the most effective substances which may be used as gargles or sprays, are hydrogen peroxide, common salt, alkaline antiseptic tablets, pinoleum, Dobell's solution, glyco-thymoline, boric acid solution, etc. An excellent preparation is made by dissolving one ounce of Epsom salts in a pint of water and adding enough glycerine to make it taste slightly sweet. This may be sprayed on the membrane or used as a gargle. It reduces swelling and neutralizes toxins.

There are many things of the kind that you can use to keep the throat and its membranes clean, remove excretions, soothe the irritated surface, to lessen congestion and to prevent multiplication of bacteria. Select that which seems to answer the purpose, always remembering that the real cure consists in whatever you are doing to eliminate the accumulations of waste substances from your body. As to the prevention of a sore throat—you

should now be able to figure that out for yourself. We will say this much, however, that, following your fast, you should live on fruits and vegetables chiefly, and you will find that "sore throat" is a thing of the past so far as you are concerned.

STOMACH DISEASES

THE most general stomach disorder is that known as dyspepsia. This is a general term applied to faulty digestion. The disease must be considered more as a condition of functional disturbance of the glands of the stomach than as a diseased state of this organ. The secretive and absorptive function of these glands may be impaired in many ways—through overeating, or the eating of unwholesome food; insufficient mastication; poverty of the blood; and a deficiency in the character and quantity of the secretions of the glands.

Dyspepsia is an ailment the growth of which is slow in character, wilful disobedience to hygienic laws for a term of years often being necessary to produce a condition of chronic dyspepsia. Constipation, often in an aggravated form, must first be present before the functional activity of the stomach can be seriously impaired. As the ailment develops, discomfort is experienced after meals, the stomach becomes distended and flatulence follows. Owing to toxic absorption from the bowels nervous symptoms may arise such as headache, neuralgic pains, sleeplessness and dizziness. As digestion becomes increasingly difficult, the pain experienced after eating will cause proportionate discomfort. The difficulty often experienced in the cure of a case of chronic dyspepsia of long standing is primarily due to the burdened condition of the blood. This reacts upon the digestive juices, impairs their chemical efficiency and thus almost any combination of food, however digestible in theory, proves in practice a further addition to the existing burden.

Ulcer of the stomach is a frequent gastric affection which often follows as a consequence from prolonged and painful dyspepsia. The same condition of the blood which, by changing the character of the digestive secretions, produces dyspepsia, will likewise be provocative of that internal soreness which precedes the outbreak of an internal ulcer. For this reason an ulcerated condition of this organ is much more common in women than in men.

The symptoms which precede a gastric ulcer are, in addition to those present in dyspepsia, hyperacidity and sour eructations, heartburn, and severe stomach pain before meals. The ulcer at

first is about the size of a quarter but it may grow to the size of the palm of the hand. With its development, more and more pain is experienced, both before and after meals, until even the ingestion of a small amount of liquid causes acute suffering. Vomiting immediately after food is the first serious symptom; and when the vomit is tinged with blood an ulcerous formation can safely be premised. These symptoms may appear and disappear for years, often the enforced rest imposed upon the stomach by the prompt rejection of all food, sufficing to bring about a temporary internal healing process. But with each recurrence the area of the ulcer extends and the walls of the stomach degenerate, until, with the lapse of time, the ulcer eats its way through the coatings of this organ and peritonitis and death follow, owing to the extreme emaciation of the sufferer.

Cancer of the stomach never develops as an independent disease, but is generally a morbid growth which forms over the surface of an old ulcer. When not due to this, other gastric disorders always precede its appearance. The signs whereby the cancer can be recognized in its early period of growth are indefinite and not easily determined. But a common symptom is an obstinate catarrh of an inflammatory nature. When this proves intractable to proper treatment and is accompanied with emaciation, anemia and other dyspeptic symptoms, the presence of a malignant growth may be a possibility. The only sure sign, however, is when the growth can be felt through the skin.

Gastritis is a disease of the stomach which may be either acute or chronic in nature, caused by an inflammatory condition of the mucous lining.

Acute gastritis is generally attended with slight fever; the stomach is sensitive, tender to pressure, and often swollen. There is a marked disinclination for food and some nausea, with much belching of gas and often vomiting. When the first symptoms arise, if proper care be exercised, they usually disappear in a few days. Should they be unwisely treated, however, a condition of

Chronic gastritis or *catarrh of the stomach* follows, in which the stomach undergoes a considerable degree of degeneration. Loss of appetite, pain after meals, eructations, constipation, much mental disturbance, and emaciation are not uncommon symptoms of this complaint. Should the inflammatory processes persist, this in time will lead to the shrinking and serious impairment of the stomach's glands, often ending in ulceration. When the irritation is severe the mucus vomited reveals traces of blood and this is a symptom of some gravity.

Dilatation of the stomach is another serious ailment of this organ. It never exists as a disease in itself but is always an after-effect or accompaniment to dyspepsia, gastritis or other digestive disorder. The chief characteristic of the disease is the expansion of the walls of the stomach, and this dilatation increases the capacity of the stomach to two or three times its normal quantity, while its power of contracting after the digestion of food is more or less impaired.

The consequence of this loss of elasticity is that the muscles are no longer capable of squeezing and discharging the whole of the digested nutriment into the small intestine; thus fermentative and putrefactive processes arise and the patient is constantly troubled by the eructation of gases and acids. Vomiting, often of a severe nature, is thus a frequent symptom in all severe forms of dilatation, though mild forms of distention may persist for some time without serious inconvenience. But the end usually comes with all symptoms of starvation due to extreme emaciation.

Nervous Disease of the Stomach

The patient is often informed that his stomach trouble is due to a nervous disorder. But this is a myth which exists only in the mind of his medical attendant. "Nerves" are a convenient medical peg on which to hang anything which cannot be explained away. And as so many forms of stomach trouble prove intractable to the average practitioner, unversed in the simplicities of health, such an explanation serves the twofold purpose of explaining his inefficiency and satisfying his victim's self-esteem and credulity.

Inasmuch as the stomach and digestive tract make the blood, and the blood nourishes and remakes the nerves, the nervous system remains healthy and vitalized while the purity of the vital fluid is maintained; and the blood remains pure while the integrity and wholesomeness of the alimentary tract are preserved.

TREATMENT.—There is perhaps no disease which can be more effectively treated by our methods than the various stomach disorders. Within the stomach we find the beginning of the blood-making process. In fact, no matter what disease you may be attempting to treat, you should first of all prescribe for the welfare of the stomach, for the blood is responsible for the work of repairing the body.

I would advise, first of all, a fast to be adhered to for from three to thirty days, depending altogether upon the weight,

strength and vitality of the patient. In fact, a long rest for the stomach in these diseases is of paramount importance. You should remember, however, that this fast must be broken very carefully. In nearly every instance a milk diet should be carefully followed for several weeks, or at least until the patient gains as much weight as possible. This increased weight does not merely mean added fatty tissue, but in nearly every instance it means a thickening of the walls of the intestines, which means added digestive power and increased vitality generally. If one's occupation makes the strict milk diet impossible, then a modification can be adhered to, and after having followed this regimen for a little while, a milk and fruit diet could be used. Thereafter it would be well to continue for some time on some combination milk diet, selecting one that seems to please your appetite. You should remember, however, that if at any time you find your appetite disappearing and you no longer have a keen desire for food, under such circumstances it would be well to fast for one or two days.

The selection of a vitality-building regimen adapted to the strength of the patient and followed out daily with persistence, will add to his muscular vigor and thereby increase the nervous energies and consequently add to the digestive capacity. While on a full milk diet, little exercise is advised except in the early morning, though when one begins to change his diet a great deal of active use of the muscles is necessary in order to build the vitality which is needed to assure permanent recovery. Manipulative treatments are especially valuable in the treatment of these disorders.

Cancer of the stomach should be treated by the prolonged fast and later a fruit and vegetable diet or a milk diet.

Dilatation of the stomach can be permanently remedied in practically every instance by a fairly long fast. It is a fact known to everyone who has had the slightest experience with fasting that as one begins to fast the stomach gradually grows smaller. In fact, after one has fasted from ten to fourteen days, the capacity of the stomach seems to have been lessened by fifty to seventy-five per cent or, in other words, it does not seem to be much over one-fourth or one-half its usual size. Now a dilatation of the stomach is nothing more than the enlarging of this organ and any process that will materially but naturally reduce its size cannot be otherwise than beneficial in character. By following a fast as long as possible without weakness which is serious in nature, you can always bring about satisfactory results in this particular disease.

The same general regimen above advised can be adhered to, though the milk diet will have to be taken with considerable care. In some cases a diet which does not require so much milk would be better. Where milk is taken, however, in quantities of not over a glass at a time and one glass every half hour for eleven or twelve hours a day, there is little danger of too much dilatation of the stomach.

The ordinary milk diet naturally increases the size of the abdomen, but where not over a half pint is taken each half hour, you can rest assured there can never be very much in the stomach at one time.

Acidity of the stomach can also be remedied in every instance by following the fasting regimen for a period adapted to the individual strength. The milk diet is especially valuable in cases of this kind and should be adhered to for several weeks if possible, but it may be necessary to use skimmed milk in these cases. A general vitality-building regimen is of great importance in this particular ailment.

Prolapsus of the stomach is caused by weakening of the muscular coats of the organ and remedied by the same methods as for hemorrhoids. The milk diet regimen in conjunction with cold sitz baths, cold compresses and general constitutional upbuilding will be of great value.

Constipation commonly accompanies various stomach disorders and should always have careful attention.

THINNESS

WE are frequently asked the question, "How can I gain weight?" This question is more frequently asked than, "How can I lose weight?" because there are more skinny people than fat people. Besides, it is easier to lose weight than to gain weight as all fat people have to do is to eat less which in these days of H. C. L. is perfectly in order. Not all thin people, however, can gain weight by eating more, although that is exactly what they are usually advised to do.

In discussing the methods for increasing avoirdupois we would make plain first of all that by weight increase we do not mean simply fat production, and all those who have visions of aldermanic proportions had best disregard our instructions as they might be disappointed. All those, however, who desire the weight of health—the normal weight—can, by paying attention to details, secure the weight desired.

Weight for weight's sake is no virtue. I have always maintained that a healthy person will have the weight that is normal to his stature, his occupation and environment. In many cases attempts to force a greater weight without first improving health is followed by dire consequences, inasmuch as the vital organs are depleted and often deranged in taking care of the increased intake of food commonly recommended for increasing weight.

Most of us would be better off if we kept ourselves rather thin than fat. In all epidemics of acute disease the thin are less liable to be attacked and suffer less if they become sick and have a lower mortality than the fat. This applies particularly to babies and old people. It is the slender old man that attains long years with the full possession of his faculties, not the stout.

There is a normal weight, however, that all should strive for. This is the weight that comes with increased size of bone and muscle, with sufficient fat to give roundness to the form. Such weight means increased power and the ability to do more efficient work. With such weight you will feel better and enjoy life to the fullest. With weight that comes from increase in fatty tissue alone you will slow down in your activities, and work and play will be tasks rather than pleasures.

The normal weight of a person depends first of all upon height and breadth of body. If you have slender, light bones, with muscles rather flabby and soft, you will naturally weigh less than one with heavy thick bones and well developed, compact muscles.

Your weight will also depend upon the thickness of the layer of fat covering the body. If this is evenly distributed with no bulging rolls or protuberances, but yet enough to give roundness to the limbs and trunk, be satisfied with your share of bodily fat and do nothing to increase it, but if your muscles are undeveloped, try to increase your weight by developing these.

Although many have increased their weight by correct eating alone, and others by exercise, the most satisfactory method is that in which cognizance is taken of all measures that tend toward the normal in both health and weight.

Strange as it may seem to the uninitiated it is best to begin a weight building régime with a fast or at least a few days upon which nothing but acid fruits are eaten. This gives the digestive organs a rest and a chance to rid themselves of the accumulation of catarrhal material with which they are often encumbered and which is usually responsible for the poor digestion and faulty assimilation. Fasting is the quickest way to overcome catarrhal inflammations of the alimentary tract, and very little weight can be put on until this is done.

A method described many years ago by Bernarr Macfadden which is especially recommended when the digestion is faulty, is to fast for one day and then eat for one day; fast for two days and eat for two days; fast for three days and eat for three days; fast for four days and eat for four days, and so on up to a fast of seven days, followed by an indefinite period of either a milk diet or regular meals. Milk may be used as the diet during the entire régime or well selected and properly combined solid foods used. In this régime one not only secures the eliminative effects of the frequent fasts, but the building up and curative benefits of the milk as well.

Although not absolutely necessary, in most cases weight can be increased more quickly by the exclusive milk diet than through any other means, and even when a solid diet is used the addition of some milk every day will help in the increase.

Most people make the mistake of taking milk with their meals. It is all right to make a meal of milk alone, or milk combined with fruits, or milk, sweet fruits and cereals, but milk should not be used with meat, vegetables, eggs, or at meals at which large quantities of heavy foods are eaten.

When a person has the desire to increase his weight he usually thinks first of eating more food. I have known of many who ate enormous amounts of food, and the more they ate the thinner they became. The increased amount of food was actually a detriment to weight building. We remember one man who was losing weight on two meals a day and upon taking one meal which was well masticated and plenty of water during the rest of the day he gradually increased his weight and improved his general health at the same time. Not all, however, will have this experience, as first of all the digestion and assimilation will have to be brought up to normal.

I believe some people are thin because they do not drink enough water. The body is three-fourths water and this must be supplied in food or drink. Drinking at meals rather favors weight production, as there is greater solubility of the food, and therefore greater absorption. Liquids should not be used for washing down food, however. In addition to the liquid contained in the other foods eaten, one should drink at least two quarts of water daily. One of the reasons that weight is gained so rapidly on the milk diet is because of the large amount of water supplied the system.

The mistake is often made of consuming large amounts of protein-containing foods by those hoping to thus increase their weight. The body requires very little albuminous material daily and any excess above this taxes the system in its elimination. Nor are all of the protein-containing foods equally efficient in respect to this element. It has been found that the protein of milk, for instance, is far superior to any other in growth production, far exceeding that of the legumes in this respect, although these have long been the standby of those trying to increase their weight. It is certain that a quart of milk will furnish all of the protein needed each day and no matter what other food is eaten we would recommend that this amount at least should be taken daily by those trying to increase their bulk. For variety the other protein containing foods may be used also, these being nuts, cheese, eggs, meat, beans, peas, lentils.

Most thin people have failed in respect to their fat intake. In some cases the addition of more fat will be followed immediately by a gain in weight. The best fat is that supplied in milk, butter, and cheese, next is that of the egg, then of the nuts, and then the olive.

When we come to the carbohydrates, we should think first of all of the sweet fruits, such as dates, raisins, figs, prunes and bananas. These contain carbohydrate in the form of dextrose

and levulose, sugars found in the blood, and they are therefore quickly digested and absorbed. These fruits are usually eaten as relishes, but should be seriously considered as important weight producing foods.

The other group of carbohydrate food—the starches—should also be considered by those underweight. Of these, rice undoubtedly stands at the head of the list; corn meal, oatmeal, whole grain wheat, potatoes, beans and peas also contain starch, and are eaten as carbohydrate foods.

All of the foods mentioned so far cover the chief source of the proteins, fats and carbohydrates in the dietary, but there are other food substances of even more importance—the salts—which although supplied to some extent in all foods, are more assimilable when furnished the body in fresh fruits and green vegetables. Without an abundance of the salts one might take on flesh but would not be healthy, and indeed, experience has shown that a person will be more liable to attain normal weight when an adequate amount of the salts are supplied.

Such fruits as grape-fruit, oranges, lemons, peaches, cherries, pears, apples, plums, berries, and grapes, and such vegetables as lettuce, raw cabbage, spinach, celery, tomatoes, chard, radishes, onions, dandelion, beet-tops, and water-cress, should form a part of every diet in seasons. Instead of using these foods as relishes, they should make up a great part of the meal. The absence of these foods spells disease.

The amount of food needed by those underweight should depend upon natural hunger. To eat without hunger is to invite disease. Of what use is weight if you are not well? If you are well you will have hunger that cannot be mistaken, your food will be digested, and your weight will reach normal.

Knowing which foods are the best for building tissue the next consideration is how to combine them and at which meal to take the various articles. It should always be remembered that the fewer articles one takes at a meal the better, and that some uncooked food must be eaten every day at one or more meals.

For most people the three meal plan will be found best. Most people are accustomed to this and we have always believed that less harm is done in eating three light meals than in eating two heavy ones as is usually the case with those omitting one meal in the day. For the first meal take milk alone, or milk and fruit. For instance, one could very well make a breakfast of one quart of milk sipped slowly during the time usually allowed for breakfast. If preferred, less milk may be taken and some of the sweet and acid fruit added; or a dish of cereal with

sweet fruit and milk will make a satisfactory meal. I knew a man that gained twenty pounds in a month by adding every day to his regular diet a dish of boiled rice, fresh milk, and raisins. A bowl of very ripe bananas, milk or cream, with dates and nuts, is also a weight producer, and will make a good breakfast.

At the second meal, the cooked vegetables, such as potatoes, carrots, beans, peas, cauliflower, beets and turnips, should be used, with a soup, and whole wheat bread. At the third meal have your eggs, meat, fish, dried beans and peas combined with some raw vegetable, as lettuce, celery, onion, tomatoes, chard, raw spinach, raw cabbage, or radishes, and be sure to eat the raw vegetable—do not consider it a mere ornament.

It will thus be seen that we keep the fruits and milk separate from the vegetables, and that acid fruits are not used with cereal. If we combine our foods in this way and take but two or three articles at any one meal we will be less likely to overeat and less subject to fermentation in the alimentary tract. As digestion improves the weight will gradually increase. We have known of some gaining weight with no other change in their habits except proper food combination.

Many do not gain because they are too active. They are continually on the go, and there is no chance for the storing up of tissue. If one's work entails very much exercise additional exercise should not be taken; rather let the work be followed by a complete rest until the following day, with the exception of a few stretching movements and bending for the sake of the spine.

The best exercise for weight increase is that taken with slow deliberate movement, increasing the work from day to day as the strength increases. It is best to exercise on alternate days, as time must be allowed for the muscles to get rid of the poisons generated by the exercise, and for new cells to be deposited; it should be remembered that a muscle does not grow during exercise but during the rest period, and for this reason some who exercise every day do not gain in weight.

In addition to heavy exercise there should be some of more rapid movement for the sake of developing agility. For this purpose some of the outdoor games may be played by those able. Walking and short runs will help in developing lung power.

In mentioning lung power we must not forget that oxygen is the principal element found in the body and that a great part of this enters as respiratory oxygen. Increased breathing ability

is therefore an advantage to those trying to increase weight. Whenever working or walking, out of doors particularly, get into the habit of taking deep breaths of air. Let this summer be an outdoor one for you. Eat out, sleep out, work out if you can, and spend all of your spare time out of doors.

The importance of sleep in gaining weight must be considered. Some manage with very little sleep but in the end will pay the penalty. The body must have time for repair and particularly is this true in respect to the nervous and muscular systems. The good old rule of eight hours sleep has never been equaled as a restorative and a builder of bodily tissue, and in our weight-building régime we would insist on observance of this.

Some keep thin by too much bathing. It is all right to keep clean, but the continual soaking, steaming, scrubbing and scouring some people subject their bodies to, is not designed for putting on weight but for taking it off. A short, quick shower or a sponge bath with water slightly cooler than the body is sufficient for cleanliness, and those living in clean environment do not require even this every day.

Tissue growth follows as a direct result of conservation of energy, and the need for increased tissue. Therefore all of our habits of living should be such that our bodily powers are preserved and used in a conservative manner. If we continually waste energy in eliminating poisons from our systems—put there in the pursuit of pleasure and stimulation, or through excesses in other directions—we must expect to be thin. But if we save our nervous energy for legitimate uses and expend it wisely for the normal activities of the body we will attain the weight that is normal for our particular type of stature.

And when we attain just the right weight that nature intended for us we will find that every part of the body will function more perfectly and that we will enjoy the maximum of energy.

TUMORS

TUMORS in general may be defined as abnormal growths which differ from the tissue in which they develop. They are characterized by an enlargement or swelling of the part affected. Usually a certain amount of inflammation accompanies the growth, but this rule is not invariable. They may be internal or external and affect any part or organ of the body. There are a large variety of tumors which differ in their nature and effects, some of them being comparatively harmless and others of a malignant type.

The benign tumors may become serious, however, when they increase to such size that they give sufficient pressure to vital organs as to interfere with their function.

Intestinal growths are almost always of a cancerous nature. They generally appear within the rectum or the large bowel; rarely within the small intestine. The symptoms which distinguish a malignant growth are abdominal pain and colic, rectal bleeding and diarrhea. When the hand is applied to the seat of the pain the tumor becomes palpable to the touch. The growth may extend until it becomes the size of an apple. When this leads to intestinal stoppage, vomiting of the feces is liable to follow.

Intestinal polypus is a benign growth usually situated in the small intestine or rectum. The polypi are harmless excrescences about the size of a finger and unless they grow to the degree that they prevent the passage of food, they do not materially affect the health. More or less severe hemorrhage is a symptom which indicates the presence of these growths.

Tumors and cancer of the larynx are of common occurrence. The tumors may take the form of a polypus or wart and be comparatively harmless. In such instances the removal of these excrescences by means of the surgeon's knife is often recommended. It is well, however, to remember that an apparently harmless and benign growth is often premonitory of one of a malignant nature; and when a cancerous growth appears in the throat, the victim is usually beyond the reach of mortal aid.

TREATMENT.—Tumors are the result of an abnormal condition of the blood, and constitutional measures will accomplish a

definite and satisfactory cure. There is some defect in the operation of the functional and blood-making organs which gives rise to the formation of these morbid growths, the latter often arising from the presence of foreign matter circulating in the blood stream.

Consequently a radical purification of the blood is necessary, and general eliminative measures should be adopted. In most cases fasting is the best of all remedies in treatment of tumors. In extended fasts particularly, tumors are inclined to be absorbed. In other cases fasting will purify the blood and prepare the system for building vitality and a more perfect nutrition; therefore, follow it in connection with a milk diet. If one is at or above normal weight I would suggest as long a fast as the patient can safely take, but if lowered in vitality and weight, a fast of anywhere from three or four days to two weeks is recommended with appropriate breaking-fast regimen and exclusive milk diet thereafter.

In cases of fibrous tumors care should be taken in the use of flesh foods, inasmuch as the connective tissues the meat contains furnish material for its future rapid growth. In many instances, where the patient is reduced in weight and strength and where radical measures are necessary, a series of short fasts is recommended. When not on a milk diet the free drinking of water (together with the use of enemas whenever necessary) is advisable.

Spinal treatments or hot spinal packs and massage to the back may be used each day as a means of strengthening the nervous system and arousing the activity of all vital organs. These treatments should be given according to the strength of the individual. Occasional steam baths or wet sheet packs or even hot baths from 105 degrees to 110 degrees Fahr., may be recommended for their eliminative and blood-purifying qualities. However, while local hot packs should be used, on the contrary cold applications may sometimes be of advantage, having a depressing influence and retarding the cell growth in the affected part. These applications must not be brief, since they would then be stimulating, through the reaction. They should have the influence of continued cold.

For tumors located on the surface of the body, particularly malignant tumors, steam baths are most valuable as a destructive agent. This treatment has a tendency to loosen the devitalized tissues and give the healthy tissues a chance to improve.

Above and beyond all these various measures except fasting, I would regard active and vigorous exercise as the most effective

form of treatment after fasting, if the condition of the patient will permit. Exercise promotes active circulation and also brings about a vigorous condition of the functional organs. It entails a demand upon the elements contained in the blood for building up the structures which are broken down in the course of the exercise. These elements will then not be used in forming morbid growths. It also promotes such rapidity of elimination and such effective elimination that any foreign matter in the blood streams will be eradicated. In short, I would regard fasting and exercise as the two most important factors in the treatment, though a general vitality-building regimen should be adopted and adhered to. In any event improved health will serve as a check to future growth. In some instances also, tumors can be entirely relieved and removed as the result of these measures. After the fast the diet should be strictly vegetarian. Fruits, green vegetables, whole grain cereals only, and nuts should comprise the diet entirely.

VARICOCELE

THIS is a rather common and in some cases painful disorder of the spermatic cord, in which the veins are found in a dilated and varicosed condition, producing a swelling of the scrotum. It is usually found in a comparatively mild form, and is said to occur in about one out of every ten young men. It is more frequently observed during adolescence and up to the age of thirty.

There are many cases in which the spermatic veins are slightly full and tortuous, which cannot really be called varicocele, for the veins are both normal and vigorous. The quack doctor, however, does not fail to excite alarm in such cases if he can once get the attention of the normal but uninformed young man, who can be persuaded to think that he has a serious and destructive disease. As a matter of fact, varicocele probably offers the most profitable of all fields for the quack, whether the disorder is real or imaginary. The quack makes the young man believe that every possible sexual disorder, aside from venereal disease, will result from this swollen condition of the spermatic veins.

The spermatic cord is the sheath-like structure suspending the testicle on each side, and containing the duct of this gland, the vas deferens, the spermatic artery, and the spermatic veins, which take the form of a network. A poor general circulation, congestion of blood in the parts, laxity of the tissues and other factors may cause these veins to enlarge until they feel "like a bunch of earth-worms," cause an enlargement of the scrotum, and perhaps give rise to distressing symptoms or lead to serious results. In many cases there are no symptoms except the enlargement mentioned. In some cases, where the scrotum hangs very low, there is a sensation of weight and dragging down. In other cases there is a dull, aching pain, which may at times become intense. There may be tenderness of the veins and cord. When the scrotum is lax the tortuous outlines of the veins may be distinctly seen.

Varicocele is nearly always found on the left side, there being three important general reasons for this fact. In the first place, the left cord is longer than the right. Then the left spermatic vein opens at right angles into the corresponding renal vein,

which anatomical peculiarity does not favor such ready return of the blood on that side. And finally, the left spermatic vein runs across in front of that fold of the descending colon known as the sigmoid flexure, with the result that the latter may press upon and obstruct the vein when it is distended by bowel accumulations. The constipated man, therefore, is far more likely to have a case of varicocele, and the cure of constipation, when present, is one of the first essentials in the treatment of the complaint under discussion.

Long standing is supposed to be a cause of varicocele, but it cannot be regarded as an active cause inasmuch as it will not affect one who is vigorous, normal and of a good circulation. The real cause is usually to be found in the debility and lack of tone of the individual, or perhaps in the continued or frequently repeated congestion of the parts due to too much sexual excitement, especially in early life. Masturbation, in this respect, may be an active factor, causing frequent engorgement of the veins, and also promoting that state of general debility which predisposes to it. But while many entertain the impression that varicocele is always the result of sexual vice, the condition may prevail in those who have not offended in this respect, but who are generally lacking in strength and vigor. The causes may include obstruction from pressure of a tumor, rupture or truss, as well as from the constipation already mentioned, injury to the cord, strains in lifting, especially if constipated, considerable bicycle riding, and sedentary habits.

In many cases the mental condition of the patient in his worry about the matter, and his fear as to impending impotence, are more serious than the varicocele itself. Ordinary cases can be readily cured, and the worry is entirely unfounded. In more severe cases, however, the degeneration of the veins and their walls may be serious, and as a result of the congestion of the testicle, due to the failure of the return circulation, this vitally important gland becomes softened, impaired in function, and more or less atrophied. Sometimes it is shrunken to the size of a pea as the result of this disorder.

Treatment.—Inasmuch as this disorder is the result of poor circulation and general lack of vigor, it follows that the treatment must be of a nature to strengthen the parts affected along with the rest of the body, and to promote the activity, circulation and development and greatest possible degree of tone in all of the tissues concerned. Aside from the matter of exercise, without doubt the use of cold water is a most important factor in the treatment of this complaint. Cold water may be used very

freely and with any frequency desired, though I would suggest a return to the use of a cold sitz bath each morning following the exercise, and bathing the affected parts with cold water once or twice thereafter during the day. If possible, a cold sitz bath morning and evening would be satisfactory, and the colder the water the more effective the treatment, provided one is able to endure it and secure a satisfactory reaction. If at any time there should be extreme pain, a hot sitz bath may be of advantage, but it should always be followed by a cold sitz bath or local bath with very cold water.

The wearing of a support is in general to be recommended in a case of this kind, though where there is extreme tenderness and pain, it may be used only for a part of the time. A condition of this kind, however, will yield rapidly to the treatment recommended and the use of a support should be gradually relinquished, for in the course of a little time it will not be necessary even for a short period. In connection with this water treatment and the special exercises mentioned, the patient should adopt a general vitality-building regimen for developing the highest possible degree of health, purifying and enriching the blood and promoting the most perfect circulation. Long walks together with games suited to the strength of the individual are specially to be recommended. Indeed, the more robust and muscularly vigorous, the better will be the circulation and the quicker will he be able to recover from a condition of this kind. In some cases of long standing the patient may seem to be discouraged with the treatment, in spite of the fact that he no longer finds any inconvenience from the complaint. It may seem to him that the enlarged veins have not been reduced satisfactorily. He need feel no concern on this account, however, if the condition of the parts is vigorous and satisfactory in every other way. Sometimes, in long standing cases, it is impossible to reduce the veins to their normal size, but in that event, the walls will be so strengthened and toughened that they will perform their functions perfectly and with no future distress to the patient.

One important factor of treatment, however, perhaps in many cases the most important factor, is the necessity for avoiding sexual excitement and erotic thoughts. To avoid the cause is a first requirement in the treatment of any disease, and sexual excess or even mental sexual excitement must positively be avoided.

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